

THE NORTH CAROLINA DENTAL R · E · V · I · E · W

Magazine of The School of Dentistry ♦ The University of North Carolina at Chapel Hill
Volume 1, Number 1

December 1983



How Many Are Too Many?



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Cover:

"How many are too many?" These words have been asked by many in the dental profession over the past several years. In this issue of the *NCDR*, the aim has been to address this question with feature articles from different perspectives. The recent meetings of the Citizens Advisory Committee have concluded. This Committee was appointed to examine enrollment issues in the School of Dentistry. Each dentist in North Carolina has been mailed a copy of this report. A brief synopsis is enclosed for review with this issue.

(Cover by Warren McCullom)

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Dean's Commentary

With this publication the School of Dentistry and the UNC Dental Alumni Association embark on a new career as publisher of the *North Carolina Dental Review*. Our hope is that this magazine will serve as a way of informing the dental professionals of this state of various issues, clinical and non-clinical which inform their practice and therefore their lives. In a very real way we see this publication as an important part of our efforts to merge the affairs of the Dental Alumni Association, the Dental Foundation and continuing education in a way which will serve better your needs and interests.

I do not believe we could have selected a better topic with which to begin this publishing effort. Dental manpower has been and continues to be one of the most argued topics within our profession. Are there enough dentists? Too many? What should the School's role be in addressing the problem? All of these are questions which have vexed us all during the past few years.

We have here what I believe to be an interesting collection of essays on the topic. Charlie Horton has, as is his like, shared a bit of wisdom and insight from his vantage point in High Point. The chapter on dental manpower from the ADA's Report on the Future of Dentistry provides a wealth of factual data which has too often been missing from both sides of this argument. Finally, my testimony before the Chancellor's Committee on Dental Manpower has been edited in order to present to you the best approximation of the School's position in this important matter.

I am pleased that the Committee report is in and based on the total situation, the School plans an appropriate reduction in the size of the entering class beginning with the fall of 1984. This decision coupled with the opportunity to share our opinions in this publication will, I hope, lead to a new era when the School and the profession of dentistry can once again get on about the business of addressing the many other important issues which confront us.

Our common goal continues to be the maintenance and improvement of the quality of dental education and care in North Carolina. I trust that as this publication matures and develops, it will play an active role in identifying these concerns and providing us with the opportunity to come together around reasoned solutions which are in the interest of our profession and the public we serve.

We encourage your participation and response to this new venture.

Ben D. Barker, D.D.S., '58
Dean

ADA Report on Dental Manpower*

In the 15-year period following World War II, total dental school enrollment in the United States increased more than 85%. A similar pattern of growth occurred among other health professions schools. This impressive expansion was a response to both an overall increase in the total United States population as well as a rise in demand for dental and other health services.

By 1960, however, many health professions schools were housed in facilities that were antiquated and ill-equipped. At that time, federal financial assistance to dental and medical schools was limited to research grants and public health training; little money was available to rehabilitate or replace these structures.

With the rapid deterioration of a number of instructional facilities and—in the case of dentistry—the fear that some schools could be forced to close, major health organizations (including the ADA) petitioned Congress for relief. These legislative initiatives were expressions of concern that the future supply of physicians and dentists would be inadequate to meet the then projected growth in demand for health care.

In 1963, Congress enacted the health professions Educational Assistance Act, and for the next 18 years, dentistry received a total of \$800 million in federal grants and loans. The enrollment expansions begun by the 1963 law were accelerated in the late 1960s under the forerunner of what became known as capitation grants. In return for direct operational assistance, dental

and medical schools were required to increase their first-year class sizes. With some modifications, these programs and requirements remained in force until 1981. At that time, public policy shifts and retrenchments in federal spending produced a major revision in the health manpower law, and concerns about perceived shortage of health personnel changed to concerns about a possible oversupply of health care practitioners. As a consequence, Congress terminated many of the principal federal programs of assistance, including construction and capitation grants. Of particular importance was the repeal of all student increases and maintenance of enrollment requirements of the health manpower law.

There is little question that 18 years of federal financial support has significantly enhanced the educational resources of the health professions schools. However, between 1965, the first year of actual funding under the initial health manpower law, and 1982, the total enrollment of dental schools expanded by 63%. From 1950 to 1965, a time of *no direct financial assistance*, enrollment increased by 85%.

Increases in dental school enrollments obviously have implications for growth in the supply of active dental practitioners. Table 1 summarizes the increase in the supply of active dentists from 1950 to 1980.

The supply of dental manpower is influenced by the demand for dental services, the cost of financing a dental education and establishing a dental practice and the expected financial rewards from practicing dentistry.

*Recommendations for Action,
Committee on the Future of Dentistry

Table 1.
Average annual growth rate (%) in number
of dentists and United States population,
selected periods, 1950-1980.

	U.S. Population	Number of dentists
1950-55	1.7%	1.3%
1955-60	1.8	1.3
1960-65	1.4	1.3
1965-70	1.0	1.4
1970-75	0.9	1.8
1975-80	0.9	2.6

Source: ADA, *Manpower Resource Book*, 1980

Demand for Dental Services

While the needs for dental care will remain substantial, manpower planning must be based on demand for dental care. For the remainder of the century, increases in the numbers of persons aged 25 to 44 and 65 and over will have an impact on the level of demand and the types of services rendered. No dramatic changes are anticipated in the growth in overall demand for dental services.

Need Versus Demand For Care

The need for dental care, as discussed in the previous section, has been clearly documented by oral health examination surveys of representative populations. However, *effective demand* occurs only when an individual actually seeks dental care. If need is to be transformed into effective demand, an individual must:

- recognize that dental care will improve well-being;
- have the means to pay for the care received; and
- have access to dental care.

In recent years, the dental profession has explored ways to convert need to effective demand, thereby improving the oral health of the nation. Its efforts have included numerous activities such as access initiatives and marketing programs. These and similar commitments undoubtedly will be strengthened in the future.

While these efforts will help to increase the demand for services, they do not eliminate all barriers to care. For various reasons, a large amount of untreated dental disease will continue to exist and effective demand will continue to fall short of need. Changes in the supply and location of dental manpower and the amount of services rendered respond to changes in effective demand rather than need. Studies have shown that the total amount of demand for dental services depends on a number of variables including the size and demographic composition of the population, the range of dental fees, individual purchasing priorities and the existence of economic means (such as prepayment plans and public health funds) to procure care.

Implications

- Through efforts to study and understand the role of demand and its determinants, the profession will design and implement various programs to increase the demand for care so that it can expand overall demand, reduce unmet demand and reduce overall need for dental care.

Demographic Factors Influencing Demand

Demographic characteristics, such as age, sex, education, occupation and race, are important determinants of demand for care. As these factors change, so will demand.

The population of the United States is projected to increase over the next two decades, but at a declining rate of growth compared to previous decades. The age structure of the population will also shift, resulting in:

- a major significant growth in the number of 25 to 44 year olds during the 1980s
- substantial increases in the number of school-age children and adults aged 45 to 64 during the 1990s
- steady decline in the number of 18 to 24 year olds during the 1980s and 1990s

- steady increase in the number of individuals 65 and older during the 1980s and 1990s.

Implications

- Total demand for dental services will continue to grow as the population increases in size and moves into age groups historically reflecting higher rates of utilization of dental services.
- The mix of dental services demanded will change in concert with the shifting age distribution of the population and their changing needs.
- As a larger percentage of adults retain their dentition into old age, demand for preventive, restorative, periodontic, endodontic and fixed prosthetic services could increase, while demand for extractions and removable prostheses could decrease.

Overall Growth In Demand for Dental Services

Although demographic changes will exert a big influence on future demand, the economic growth and development of the economy, the prevalence of dental benefit plans, the range of dental fees and governmental involvement in the payment for dental services also will play a part.

In the late 1970s, the country experienced rampant inflation, high interest rates and a deterioration in overall economic growth. Although inflation rates recently have begun to drop, the 1980s still suffer from high unemployment, continued high interest rates and a large and growing federal deficit. However, it is projected that conditions will improve slightly through the remainder of the century.

Despite a decline of 0.3% in the Gross National Product in 1980, real growth is projected to reach 2% to 3% during the remainder of the century.

The number of persons covered by dental benefit plans reached 87 million in 1981; the ADA's Council on Dental Care Programs projects that this number will reach 100 million by 1985. Most of the nation's major industries now provide dental benefits for employees and dependents; however, it is expected that future growth in dental prepayment will occur in the service sector and among relatively small employee groups. Sales opportunities are abundant in this "small employer" market. Nevertheless, the profession will have to work with substantially greater numbers of employers and achieve more agreements to match the growth of the last decade, when single decisions were made on behalf of thousands, and in some cases, millions of employees and dependents.

Rate of growth also may be slowed because these smaller employer groups traditionally have enjoyed fewer fringe benefits than major industries. Any continuation in the current high rate of unemployment further threatens future growth in prepayment, for dental benefits usually cease within a short time after termination of active employment.

Furthermore, if the economy remains weak, some industries may be compelled to reduce or eliminate some dental benefits while others will postpone initiating coverage. If the government follows through with a plan to tax fringe benefits, this will have an impact on the growth of dental benefit plans.

The future of dental prepayment is important to both the profession and the public. The structure and design of these plans, and the methods by which dentists are reimbursed, will affect the mix of services sought and delivered. For example, individuals demand more care as their share of the cost is reduced. Secondly, overall oral health can be improved if plans emphasize comprehensive care and are designed to attract non-utilizers or low utilizers.

Although some government involvement in public dental health

programs will continue, funds will fluctuate with changes in overall governmental priorities. In 1981, public expenditures for dental care amounted to \$700 million, or 4% of the nation's total dental bill. Of this \$700 million, 86% was disbursed through the Medicaid program by federal and state governments. Public spending for dental care is now decreasing because some states are limiting optional adult dental benefits in the Medicaid programs. For example, in 1981, only 30 states provided some type of adult benefit under Medicaid; in 1974, 41 states offered such coverage. As a consequence, dental expenditures dropped from 4% to 2.4% of all Medicaid benefit expenditures during this same time period.

Through the 1980s, prospects for any growth in the public funding of dental care are not promising. It is likely that low income adults will show declining demand for dental services, but will not appreciably affect the total demand for dental services. However, the dental profession will probably increase its own efforts to encourage utilization of dental care by disadvantaged populations. Component and constituent societies will continue to initiate local access programs to help special populations gain access to dental care.

Implications

- Without a significant increase in demand, competition among dentists will grow.

The Market For Dental Services

Dentists will continue to provide services primarily through a competitive market.

Somehow, demand for dental care must be transformed into services rendered. In dentistry, as in many other industries, the mechanism through which this process takes place is called the "market" for dental services. The profession must have full understanding of the dental market if it is to adequately address manpower issues.

According to the competitive market model, the combined forces of demand (reflecting patient preferences, needs and ability to pay) and supply (reflecting dentist willingness to provide care and incur financial risks in opening practices) influence dental fees, practice type and location, income and overhead, services rendered and manpower supply.

It has been documented that the supply of dental services responds to increases in demand for care. This is consistent with a traditional market model. Dentists locate new practices in areas of economic opportunity, growing demand and lower concentrations of dentists. And the decision to apply and enter dental school is directly related to the expected financial rewards of establishing and operating a dental practice relative to the financial rewards offered by other occupations.

Because of the voluntary nature of the dental market, changes in supply and demand will bring "automatic" adjustments. For example, growing demand in some geographic areas will automatically attract more dentists and lead to increased services. On the other hand, if dental incomes fall relative to other professions, fewer individuals will enter dentistry. Lastly, changes in the demand for different types of dental services will automatically lead to changes in the mix of dental services.

Implications

- The competitive forces of supply and demand for dental services will continue to be the primary determinants of such dental market conditions as the amount and types of dental services provided, the size of the applicant pool, the geographical distribution of the dentists, average income levels and the financial strength of dental practices.
- Policies designed to influence the size, composition and location of the dentist population will have an impact on dental fees, the amount and types of services provided, dental incomes and overall financial strength of dental practices.

Production And Supply Of Dental Services

The current dental care delivery system is flexible enough to accommodate future growth in the effective demand for care.

At present, dentists in private practice respond to the majority of consumer demands for dental services. To fully assess future manpower needs, however, it is important to know if dentists can and will treat more patients and/or provide more services should society increase its demand for care.

First, can dentists provide more care? Studies of dental productivity and production capabilities are of value in responding to this question. It is known that practices with different configurations of personnel, personnel and equipment and management techniques "produce" services at different rates and some are more productive than others. Future productivity increases could be achieved through a determination of the most productive mix.

Technological advances, such as high-speed hand drills, and new techniques in treating patients, such as four-handed dentistry, have been shown to increase dental productivity.

Recent research indicates that dentists will choose to supply different levels of care in response to differences in market variables such as fees, wages of auxiliaries and patient waiting times.

Implications

- Dentists can and will respond to changes in demand. The size of the dental manpower pool will reflect society's demand for care.
- If demand conditions increase significantly, with a concomitant increase in dental income relative to other occupations, then more individuals will enter the profession.

Financial Success Of Dental Practices

The financial success of individual dental practices increasingly will

depend upon the practice-building skills of the dentist. Compared with real growth in the economy, average dentist net income will experience only modest rates of growth throughout the remainder of the century.

Financial Success Of Individual Practices

Because the supply of dentists has grown faster than the demand for care, dental fees have stabilized. As a consequence, competition for patients among individual practices is expected to increase. This will affect all dentist, but will have greatest impact on the younger, less experienced practitioner. As a result, dentists will continue to seek new ways to provide quality services effectively and efficiently. It is likely that dentists will experiment with a variety of innovative approaches to practice management, including new waiting room designs, shared practice cost and equipment arrangements, different patient scheduling patterns and improved computerized accounting billing procedures.

Individual dentists, and component and constituent Societies, will continue to consider advertising and other tools of marketing to attract new patients.

Dentists will also place more emphasis on the patient-dentist relationship and will become more involved in community activities.

More new dentists will compare the risks of starting their own practices against the possibility of working as an employed dentist in an established practice. Because of high levels of indebtedness and an increasingly competitive dental market, more new dentists will accept employed positions. However, those who choose to open their own practices increasingly will seek practice locations with growing demand and solid economic opportunities.

Because of increased competition, dentists will adapt their mix of dental services to reflect changing

patterns of oral disease and demand for care. The individual practitioner will be more sensitive to potential changes in these patterns, and will be better prepared to make the necessary adjustments.

The public's need for professional dental care is great and will not . . . diminish throughout the remainder of the century.

The competitive environment also has contributed to a rise in the popularity of general practice residency programs, resulting in general dentists capable of providing a broader range of services. As disease and demographic patterns shift, it is possible that these broadly trained general practitioners will begin providing some specialty care. As a result, competition may arise between generalists and specialists.

Although variations of the fee-for-service approach will continue to be the most common form of reimbursement for dental services, dentists will continue to experiment with alternative modes of practice and payment. Such alternatives include capitation arrangements, salaried positions, systems under which dentists receive a percentage of the gross profits of a practice or some combination of these methods.

Implications

- An environment that allows dentists to seek new ways to improve the financial rewards of practice also enhances competition and leads to improved methods of providing dental services.
- The financial success of a practice increasingly will depend upon the individual dentist's ability to compete within the dental market.

- Efforts to provide care more efficiently will lead to experimentation in practice types and locations; reimbursement mechanisms; auxiliary employment and utilization patterns; and cost-saving techniques.
- Individual practitioners will become more aware of local market conditions and changing disease patterns and will adapt their mix of services accordingly.

Dentist Average Net Income

Trends in the average income of dentists indicate the overall economic health of the profession and play a significant role in influencing individual career choice. Dental fees, practice overhead, and the amount and mix of dental services affect dentist net income. The age of the dentist, specialty, year of graduation, and location of the practice all account for variations from the average.

Table 2 compares the 1978 and 1981 average net income of dentists in private practice to that of persons in other occupations. The median family income in the United States was \$17,640 in 1978 and \$22,388 in 1981; this places dentists in the top 4% of the family income distribution.

Table 2.
Average Annual Net Incomes of Selected Groups

Group	Net Income 1978	1981
Dentists	\$48,363	\$56,230
Physicians	65,500	93,300
Top level attorneys	51,798	66,958
Chemists	47,156	48,845
Engineers	42,104	56,828
Chief accountants	39,895	46,743
U.S. family median	17,640	22,388

Source: United States Department of Commerce. *Statistical Abstract of the United States, 1980 and ADA Survey of Dental Practice, 1979, 1982.*

In the past 30 years, the average net income of dentists (adjusted for cost of living increases) has increased at an average annual rate of 2.3% per year. This growth rate averaged 3.2% per year during the 1950s and 5.5% during the 1960s. The annual rate of growth during the 1970s averaged 0.3%, partially because of the Economic Stabilization Act of 1972. Between 1974, when the Act was repealed, and 1978, average dentist income grew at an annual rate of 1.8%. Between 1978 and 1981, dentist income declined at an average rate of 5.5%.

The economic prospects for the practice of dentistry are directly related to the overall state of the national economy. Economists are offering mildly optimistic forecasts for an improved economy during the 1980s. However, because the number of dentists will continue to grow faster than the overall population, the average net income of dentists will show only moderate growth in the next few years. Although dentists will still place in the higher percentiles of family income, the growth in dentist net income will be less than that of some other occupations. Continued growth in demand, an improved economy and a slowing in the growth in the supply of dentists could result in a higher rate of growth in dentist net income throughout the remainder of the century.

Implications

- The small growth in average dentist income relative to other occupations, combined with the increasing costs of obtaining a dental education, will discourage many people from entering dental school and will result in a slowing in the growth of the number of active dentists.

Migration, Location And Distribution Of Dentists

While problems of geographic maldistribution of dentists will continue to exist, dentists will continue

to locate new practices in areas of growing population and demand for care.

Unlike other economic goods, dental services cannot be produced, stored in inventory, and later distributed to patients demanding care; dental treatment requires the presence of both a dentist and a patient. The distribution of dental services is therefore directly tied to the distribution of dental manpower and dental practices.

The market system moves dental manpower in response to the demand for care. A study examining dentist migration patterns over a ten-year period, suggests that states with increases in population and per capita incomes gained dentists, while states with decreases in population and per capita incomes experienced a slower rate of growth or even a loss of dentists. Other research indicates that when the percentage of physicians in an area reaches a certain saturation level, newer physicians will move out into regional communities. Similarly, dentists tend to locate new practices in areas of growing demand and relatively small numbers of dentists.

The ADA's 1976 and 1979 *Distribution of Dentists* reveal interesting data on the types of dentists most likely to move. Overall, one of every five respondents moved his or her practice location between 1976 and 1979. New dental school graduates and dentists leaving the military or other federal or institutional service accounted for 87% of all new practice locations. Dentists with established private practices contributed little to the redistribution or migration process during this three-year period.

Various studies have shown that licensing arrangements have an impact on the distribution and mobility of dentists. Entry rates of new dentists tend to be lower in states with higher failure rates on licensing examinations and a lack of reciprocity or licensure by credential agreements.

While regional board examinations, licensing by credential ar-

rangements and reciprocity could lead to greater dentist mobility, it is unlikely that they will do so. (For a further discussion on licensure, refer to the section on Public and Professional Concerns.) First, it is improbable that the four regional boards will expand in the future. Second, over the last several years, there has been a slight decrease in the numbers of dentists licensed through reciprocity agreements; future increases are not anticipated. Although more dentists have been licensed by credentials in the last several years, this trend is not expected to continue.

What effect will foreign-trained dentists have on the distribution of dental manpower? At present, 15 states accept foreign graduates as candidates for licensure without first obtaining a degree from a United States dental school. On average, about 260 foreign graduates per year obtain licenses in the United States, and now represent about 0.2% of the total number of practicing dentists in the country. Foreign students studying in the United States dental schools currently represent 1% of total enrollments. These figures are not expected to rise. Therefore, it is not anticipated that foreign dental graduates will have a significant impact on the national dental manpower supply or distribution. Effects on regional and local areas, however may be quite different.

Implications

- Dentists will continue to locate new practices in areas of growing demand and economic opportunity. However, unmet need for dental care will exist in many geographic areas in the country as a natural consequence of insufficient demand for dental services.
- Because of lack of information, geographic barriers or insufficient population density, dentists will never meet total demand for dental care.
- There will be continued need for government programs to provide health and dental care to various

segments of the population, such as the indigent, the military and those located in remote areas.

- The dental profession will continue to develop and implement programs at the local, state and national levels to assist in resolving maldistribution problems.

Supply Of Dentists And Auxiliary Dental Personnel

Dental school enrollments will continue to decline over the next few years.

The supply of dentists will increase throughout the remainder of the century

The supply of allied dental personnel will continue to be responsive to conditions in the market for dental care. Enrollments in doctoral, specialty and dental auxiliary programs will decrease in the 1960s.

Enrollment in advanced general practice programs may increase, if financial support is available.

Supply Of Dentists

Since 1975, the number of applicants to United States dental schools declined from an estimated 14,900 in 1975 to 8,200 in 1981, representing a 10% decrease per year. The ratio of applicants to first-year enrollments has fallen from 2.6 to 1 in 1975 to 1.4 to 1 in 1980.

Although many factors have contributed to this decline in applicants, the financial conditions of the dental care market and the cost of education are fundamental. Recent research has shown that the higher the income potential of dentistry (relative to other professions) the higher the number of applicants to dental schools. The reverse is also true. Therefore, during the period 1952 to 1978, a 10% increase in dentistry's earning potential (relative to other occupations) led to a 9% increase in the applicant rate. However, from 1970 to 1978, the earning potential of dentistry fell by 10% relative to other occupations; the applicant rate also fell 10% during this time.

Between 1965 and 1978, first-year enrollments in United States dental schools rose from 3,800 to 6,300 students, representing an average annual increase of about 4% per year. Between 1978 and 1981, however, first-year enrollments declined to 5,855. This downturn resulted from a variety of factors, including the termination of federal mandatory enrollment requirements, the rising cost of a dental education, increased competition, and a decline in the applicant pool. First-year enrollment is expected to continue to decline throughout the 1980s, plateauing at approximately 4,500 to 5,000 students by 1990.

First-year enrollments will decline throughout the 1980s; however, the total number of practicing dentists will continue to grow throughout the remainder of the century. The estimated growth in the supply of dentists (1.6% per year during the 1980s and 1.2% per year during the 1990s) is expected to continue to exceed the estimated growth in the United States population (0.8% per year). As a result, the national dentist-to-population ratio will continue to rise.

Females will comprise a larger proportion of dental students in the future. In 1970, female students represented about 2% of the total first-year enrollment; by 1981, the figure reached 21.7%. This trend is expected to continue. It is unclear how the increasing number of female dental students will affect the supply of dental services. As the percentage of practicing female dentists increases, it will be possible to collect reliable data on females and their career choices and practice patterns.

Although the overall size of the applicant pool has declined since the mid-1970s, the number of minority applicants has remained relatively constant. First-year minority enrollment (as a percentage of total first-year enrollment) increased from about 7% in 1970 to almost 15% in 1981. However, as student tuitions increase and federal government loan and scholarship programs are

withdrawn, fewer minority students will apply and enroll in dental school. Increased tuition will place greater hardships on minority applicants; with reductions in loan and scholarship programs, minorities will receive less financial aid to offset rising tuition costs.

Throughout the 1970s and the early part of the 1980s, specialty programs showed virtually no growth. However, because first-year enrollments in dental schools have been declining since 1975, the ratio of newly trained dental specialists to dental school graduates will continue to increase until the 1990s.

Although the total number of newly trained dental specialists per year has not changed dramatically since 1971, some specialty categories have shown growth. Table 3 contains total percent changes from 1971 to 190 for first-year enrollment and graduates of specialty programs by specialty category.

Periodontist graduates have declined by 3.2% but the specialty shows an average increase of 11.1% in first-year enrollment.

Implications

- Dental schools will continue to be confronted with smaller numbers of applicants from which to fill first-year classes.
- Declining first-year enrollments will result in fewer dental graduates beginning in 1983.
- Despite the decline in the number of dental school graduates, the total number of practicing dentists will continue to increase throughout the remainder of the century before more new graduates will enter the profession than will retire or otherwise leave dentistry.

References for this article are available upon request from the Office of Institutional and Professional Relations, UNC School of Dentistry, Chapel Hill, NC 27514, (919) 966-4563.

Table 3.
Percent change in first-year enrollment and number of graduates by specialty, 1971-80.

Specialty	First-year enrollments	Graduates
Dental Public Health	-15.4%	-55.2%
Endodontics	14.2	37.9
Oral Pathology	- 4.2	-62.5
Oral and Maxillofacial Surgery	-10.3	- 1.8
Orthodontics	-11.6	-24.3
Pedodontics	16.6	35.8
Periodontics	11.1	- 3.2
Prosthodontics	6.3	21.8

Source: ADA *Advanced Dental Education*, selected years.

Dental public health, oral pathology and orthodontics show declines in both first-year enrollments and graduates during this period. In contrast, endodontics, pedodontics and prosthodontics show increases in both categories. Oral surgery graduates have increased slightly (1.8%) but first-year enrollments are declining (-10.3%).

Dental Manpower And Dental Education

Ben D. Barker, DDS, '58*



Dr. Barker

Introduction

Our society as a whole is continually faced with the perplexing dilemma of estimating future human resource needs of one kind or another and providing mechanisms for meeting these needs. Specifically in the area of dental health care, policy makers attempt to assess current and future manpower needs and demand and make appropriate plans for meeting these needs. This is a very complex issue which centers on the interrelationship of a number of factors. There is no obvious or easy solution when attempting to set education and health policy, especially in the absence of any clear idea of what constitutes adequate dental care for all citizens.

A number of factors are set forth here which must enter into the education and health planning decision-making process. For each of these factors, there is a historical perspective as well as a current status and certain assumptions which must be considered.

Health professions education as well as the demand for and delivery of health care fluctuate greatly depending on the general global, national, and state economy. Observations about the current health care systems and future plans must consider the current social and economic environment and possible trends. Currently the U.S. is characterized by pockets of destitution and prosperity; so is North Carolina. Unemployment is at an all-time high and the economy is undergoing a complete restructuring from an industrial to an information base. One

natural outgrowth of this situation with particular significance to dentistry is the redistribution of discretionary income.

Population And Dental Disease

Now the nation's tenth largest state, North Carolina is expected to remain in that position, or become ninth. The State currently has 5.9 million people and expects 7.2 million by 2000, an increase of 23%. Sixty percent will come from people moving into the state.

By 2000, eighteen percent will be over 65 years of age. We know very little about the oral conditions of this elderly population, but national data report that 44% of those 65 and older have not seen a dentist in five years. Dental caries is a major health problem in the non-white population. It continues to be a problem among whites, probably greater (because of the methods employed) than reported in the 1976 survey in North Carolina. However, there can be no question that dental caries and the corresponding demand for restorative dentistry are declining sharply. Periodontal or gum disease continues to increase and represents the major oral disease problems for non-whites and the young in general.

While these represent basic shifts in the patterns of dental disease, the fact remains that the people of this state continue to experience unacceptable levels of dental caries and especially periodontal disease. While the School cannot solve these problems alone, it clearly must pro-

*Prepared for the Citizen's Advisory Committee on Dental Manpower, School of Dentistry, UNC-CH 6/1/83. Ben D. Barker, Dean.

vide leadership, technical support, and contribute to the manpower resources necessary to address these needs. Significant steps in this direction are reflected in the School's leadership in promoting a statewide preventive dentistry program in the mid-seventies and the statewide dental disease and manpower studies completed in 1980.

University And And School Mission

The mission of the University is several fold: to provide educational opportunities for the citizenry, advance the knowledge base in all disciplines through appropriate inquiry, serve the citizens, maintain and develop the professions, and allow for freedom of thought. The overriding mission of a modern state university is human development, and with that context, a School of Dentistry exists to produce practitioners to meet the human service needs of society. Providing opportunities for young people who desire careers in the professions, in the disciplines of our society, and in research represents a key responsibility. A parallel and significant role for health professions schools is to perform basic and applied research which addresses the problems of people. Additionally, the UNC School of Dentistry also acts as an important referral center for patient care.

Status Of School And Resources

The UNC School of Dentistry enjoys an excellent reputation. In part, this reputation has been built upon the breadth of the programs available. It is widely acknowledged that it sponsors one of the widest arrays of educational, research, and patient care programs of any dental school in the United States and therefore the world. The quality of the instruction continues to reside with the human resources of students, faculty, and the practicing professionals of North Carolina and the nation.

Of parallel significance in main-

taining quality are the financial resources available. The School's state budget is derived on a capita-tion basis. That is, every enrolled student represents a fixed level of funding based on a formula applied throughout the Division of Health Affairs. This system applies to every campus within the 16-member institution. Enrollment projections are made, preliminary budgets established and actual headcounts subsequently reported to support increases, maintenance levels or decreases in the budget. All students, DDS, graduate, auxiliary, continuing education, fellows, and residents are accounted for in this process.

The UNC School of Dentistry enjoys an excellent reputation ...built upon the breadth of the programs available.

By most standards the University of North Carolina School of Dentistry ranks among the top ten state university programs in dental education. Yet in recent years it has become increasingly difficult to maintain the quality of its faculty and thereby the clinical care and educational programs. This has been due to inflationary pressure on fixed costs and correspondingly, and most vexing, problems related to a non-competitive base salary for faculty. This latter circumstance creates an imbalance in comparison to the financial opportunities for most clinicians in private practice.

Total expenditures for the operation of the School of Dentistry in 1981-82 amounted to \$13.7 million dollars. State funds represented 60 + % of this total. The remaining funds were generated through the dental faculty practice, sponsored research and other non-budgeted sources. During the past five years state budget sources administered

by the School of Dentistry increased from \$4.7 million to \$9 million (does not include basic science and indirect costs) for an increase of approximately 90%. Since health professions education in general, and dental education in particular, are labor-intensive enterprises, almost 90% of the budget relates to personnel. Thus, when state budget increases over this period are discounted for personnel salary adjustments, only \$1.02 million remained available as new or additional funds to strengthen the teaching and patient care programs within the school. Of the total new funds, slightly less than half represented legislative appropriations allocated through the University system to the School of Dentistry. A most critical aspect during this period of exceedingly high inflationary pressure on the fixed cost of operations was that only \$39,000 was available to meet these increased costs. The aggregate facilities for classroom, laboratory and clinical teaching are for the most part adequate to the needs of sponsored programs. There is some pressure for clinical space at times, but faculty resources are not sufficient for much expansion. The present building was designed for dental classes numbering 75. The gravest need is for renovation of certain clinical areas which remain much as originally constructed in 1953, and a corresponding need for additional space for research and certain diagnostic equipment.

Taken as a whole, this dental faculty is superb. The problem of attrition has been addressed in the foregoing section and represents a continuing cause for concern. The continuing ability to compete with other institutions for the best faculty may be in jeopardy if base salaries are not improved. There also remain some important areas of expertise which would greatly augment existing education and patient care programs. Clinical and research competence in oral-facial pain, clinical research in periodontics as well as geriatrics and gerontology are

leading examples. The lack of a full-time minority presence is also a compelling consideration.

Dental Manpower

The Introduction of *Health Professionals for the South: Supply and Cost Issues Needing Stat Attention*, published by the Southern Regional Education Board (1983) is instructive. Health professions education represents one of the South's major successes, but because of the implications of (a) a larger supply of health professionals and (b) the increasing costs both of health care services and the education of health professions, it also represents one of the major challenges before state policymakers. Since 1960 the South has increased the number of programs that prepare the various health professionals to the point that the region is now producing twice as many practitioners as it did at that time. The pipelines for preparing dentists, veterinarians, pharmacists, and physicians are full, which means that these large numbers of new graduates will continue through the 1980s.

In addition, the South is now attracting practitioners from other regions of the country and students who have gone abroad to study. And, new programs have been established so that graduates no longer have to leave the region to receive specialty training. As a result, the region is gaining practitioners faster than the nation. While the South (North Carolina) started from further behind, projections indicate that there will soon be more than an adequate supply of health professionals for the region as a whole.

Despite increases in the overall supply of health manpower, serious problems of distribution of professionals to geographic, subspecialty, and public service areas of need continue, except for those situations in which carefully coordinated strategies have been directed to specific problems. It seems clear that simply increasing further the number of professionals will do only a little to

solve these problems, and may aggravate them, unless other more definite actions are taken. Solutions require sophisticated combinations of action by the health professions schools, higher education agencies, elected officials, third-party payers, licensing boards, and the professional societies. Single strategies have a poor record of success, but those states which have been able to mount concerted actions have been quite successful in influencing practitioners to locate in the areas where they are needed.

With all the changes in the manpower supply picture and the changes in federal funding for health professions education, it is essential that each state analyze carefully the whole range of health manpower trends and needs and modify its policies accordingly.

Despite increases in the overall supply of health manpower, serious problems of distribution . . . continue.

Dental (dentist) manpower in North Carolina is a dynamic pattern functioning within a seminational pool of dentists. That is, the supply of new dentists in the state represents the annual licensure of UNC graduates (about 60%) coupled with all who migrate from other jurisdictions (about 40%). The enrollment history of the institution began with a projected enrollment of 50 students in 1950. In 1962 the Basic Improvement Grant program was initiated by the Federal government and enrollment was expanded by five students at that time. In 1969 a new facility, Brauer Hall, was occupied. Again federal participation in financing construction was based on expanding enrollment. Seventy-five students were enrolled. In 1972 the federal capitation incentives were in force and a class of 83 students was

admitted that fall and this pattern has continued since. A class of 83 students is proposed for the fall of 1983.

The principal in migration pattern is from the Middle Atlantic, Northeast and South Central regions. Data on the first year enrollment in these schools is not available, but national data are available for the past several years. These national trends are applicable to North Carolina for the short and long term.

The first year enrollment in all dental schools increased from 3800 in 1965 to 6301 in 1978. The average annual rate of increase was 4%. In 1980 the first year enrollment declined to 6030. By the fall of 1982, first year enrollment had dropped to 5502, which is 12.7% less than 1978-79. The current projection for 1983-84 first year enrollment is 5331 or 15.4% less than the 1978-79 figures. In summary, the downward trend in national first year enrollment will soon approach per capita levels (1970-71) and the output of students will reflect those of the late sixties by the end of the decade.

From 1980 to present, 18 schools have increased their enrollment, 37 have decreased (range: 1 to 39) and 5 schools have remained constant. Public schools have reduced first year enrollment by 8.6%, while private schools have reduced first year students by 2.2%.

During the five-year period from 1977-78 to 1981-82 the UNC School of Dentistry awarded degrees or otherwise certified 938 dental health professionals. Of these, 47 were dental auxiliary teachers, 167 dental assistants, 255 dental hygienists, 355 general dentists, and 114 dental specialists in eight areas of advanced study. Additionally, practicing professionals enrolled in continuing education courses equivalent to 250 full-time students. The School has averaged graduating 71 dentists per year over these five years. The overwhelming majority remain in and serve the people of North Carolina. It is interesting to note that during the same period the North Carolina Board of Dental Ex-

Figure 1.
Population to Dentist Ratios for Selected States

	Dentists (1979)	Population (1980)	Population/Dentist
N.C.	2,175	5,874,429	2,700
V.A.	2,599	5,346,279	2,057
S.C.	1,130	3,119,208	2,760
Ga.	2,167	5,464,265	2,521
Tenn.	2,034	4,590,750	2,257
Md.	2,591	4,216,446	1,627
Tex.	5,757	14,228,383	2,471
Calif.	14,052	23,68,562	1,684
N.Y.	12,611	17,557,288	1,392
Fla.	4,323	9,739,992	2,253

Figure 2.
First Year Places/100,000 Population N.C. and Surrounding States

State	First Year Places		Population 1980	Number Places/ 100,000 Pop. (1983)
	1982	1983		
N.C. (UNC)	83	83	5,874,429	14.
V.A. (VCU)	110	110-105	5,346,279	2.05
S.C. (MCSC)	56	50	3,119,208	1.6
Tenn. (UT)	128	90	4,590,750	1.96

This may be expressed as a first year student to population ratio.

Figure 3.
First Year Enrollment to Population for Selected States

Public and Private Schools		Population (1980)	Student/Population
	Class Size (81-82)		
N.C.	83	5,874,429	70,776
V.A.	113	5,346,279	47,312
C.C.	55	3,119,208	56,712
Ga.	154	5,464,265	35,482
Tenn.	187	4,590,750	24,549
Md.	113	4,216,446	37,313
Tex.	411	14,228,383	34,618
Calif.	587	23,668,562	40,321
N.Y.	347	17,557,288	50,597
Fla.	80	9,739,992	121,749

Figure 4.
UNC Application Enrollment Ratios

Year	Applications	Enrollment	Total Ratio	N.C. Ratio
1950	105 N.C.	40	1:2.6	
1969	272 (119)	60	1:4.5	(1:2.3)
1971	297 (128)	75	1:3.9	(1:2)
1972	422 (174)	83	1:5	(1:2.5)
1973	947 (197)	83	1:11.4	(1:2.8)
1976	1184 (208)	83	1:14.3	(1.3)
1977	994 (194)	83	1:12	(1:2.8)
1978	940 (177)	83	1:11.3	(1:2.5)
1979	679 (160)	83	1:8.2	(1:2.3)
1980	614 (132)	83	1:7.4	(1:1.9)
1981	580 (120)	83	1:7	(1:1.7)
1982	507 (118)	83	1:6	(1:1.6)

aminers granted licensure to 642 dentists, so the School of Dentistry provided approximately 60% of the general practitioners in the State, a condition which has prevailed since 1954.

While population to dentist ratios are not the best indicators of dental manpower needs, it is helpful to view North Carolina data relative to other states.

Dentists residency statistics were obtained from the American Dental Association. The total dentists reported for each state includes retirees and those 65 and older. These ratios should be viewed as "within a range," since the N.C. dental licensure office reports 2425 dentists listed with a practice address (01/01/83) and the population of North Carolina is currently estimated at 5,960,505. With the exception of South Carolina, North Carolina has the highest population to dentist ratio in the southeast. (See Figure 1.)

Of greater significance may be the relative opportunity for the citizens of a state to access public education, in this case dental education. Among immediately neighboring states, North Carolina currently has the fewest number of first year positions per 100,000 population. (See Figure 2.)

This may be expressed as a first year student to population ratio. (See Figure 3.)

Dental School Application Trends

Since 1975 the number of applicants in the U.S. has declined from 14,900 to 9,700 in 1980 (an average decline of 8.2%). The number of applicants per first year student was 2.6 to 1 in 1975 and declined to 1.6 to 1 in 1980. At UNC, applications over the past 5 years have decreased 44%. This trend causes greater concern with respect to the in-state applicant pool.

What are the projected national applicant trends to the year 2000?

The following factors are significant for the pre dental population:

Figure 5.
Average Science & Non-Science GPA* and DAT* for All Interviewed Applicants

Year	N	Science	General	DAT
		GPA	GPA	
1982	145	3.14	3.30	19.86
1981	158	3.13	3.28	19.86
1980	176	3.11	3.26	19.06
1979	192	3.01	3.22	18.04

*GPA = Grade Point Average

*DAT = Dental Aptitude Test

Figure 6.
Percent of Interviewed Applicants with Science and General GPA Below 2.75

Year	N	Science (%)	General (%)
1982	145	23.4	11.7
1981	158	24.1	10.8
1980	176	26.7	9.7
1979	192	29.1	12.0

Figure 7.
Average Science & General GPA and DAT for Enrolled Residents and Non-Residents

Year	Science		General		DAT	
	N.C.	Non-N.C.	N.C.	Non-N.C.	N.C.	Non-N.C.
1982	3.06	3.79	3.21	3.69	18.4	25.6
1981	3.13	3.63	3.24	3.66	19.3	24.1
1980	3.03	3.36	3.19	3.53	18.5	24.5
1979	3.13	3.50	3.22	3.51	19.0	22.9

- 23% decrease in 18-24 year age group
- Increase in older applicants
- 5-10% decrease in undergraduate enrollment
- Women will constitute a majority of undergrads
- Minorities will increase to 1 of 4
- The applicant pool will be older, contain more women and minorities

In dentistry, future applicant pools are expected to be 50% women, 13% Black, and 23% Hispanic at the national level. (See Figure 4.)

Quality of UNC Applicants And Enrollees

The following data are self-explanatory. The four-year span presented indicates that even with a decline in applicants in excess of 40%, the quality of the pool was increased slightly rather than declined. The out-of-state pool has always been stronger, because it is

known that the competition for out-of-state spaces is exceedingly keen. Only those with the highest GPA's apply. (See Figures 5, 6, 7.)

The implications of these trends are that heretofore the UNC School of dentistry has been able to enroll very qualified students even in spite of the precipitous decline in the number of applicants, especially among state residents, the School will have major concerns about the potential of maintaining the quality of incoming students. There are a number of possible explanations for these downward trends in the number of applicants:

- Increased interest in other science areas, eg. engineering, computer science, etc.
- Increased cost of dental education—predoctoral and doctoral
- Shift in undergraduate enrollment to less males who previously made up the bulk of the application pool

- Perceived negative image of dentistry
- Decrease in graduate education in general
- General state of the economy

Need For Recruitment

The future of the dental profession rests with the young men and women who are currently in dental school or are considering a dental career. For numerous reasons, some of the brightest persons, who in the past were interested in dentistry, have opted for other careers. This places the future of the profession and indirectly the public's health in jeopardy. Thus it is critical that the University enhance its recruitment efforts in an attempt to show talented young people the positive side of dentistry. Regardless of enrollment level there is always a need to admit the most talented and creative students.

Post Graduation Plans

The average debt of students graduating from public dental schools in 1982 was \$21,300. Only six percent of all students surveyed did not anticipate any indebtedness upon graduation. Perhaps as a response to this, the percentage of seniors planning to pursue solo private practice has decreased, while the proportion planning to work in partnerships or group practice has increased. The number interested in advanced education, teaching, and research has increased slightly. Interest in government service, which had been declining since 1978, may be increasing again. (ADA Annual Report 1981-82) (See Figure 8.)

Dental Manpower Supply Components

As has been previously reported, it is the *outputs* of dental manpower supply (licensed and entering practice) rather than *inputs* (enrollment) which influence the productive capacity of the dental profession in a given jurisdiction. If the number of students enrolled is discounted for

Figure 8.
Post Graduation Plans—Seniors 1982

	1978 %	1979 %	1980 %	1981 %	1982 %
Solo Private Practice	21.5	18.7	17.3	16.1	14.7
Partnership or Group Private Practice	17.9	15.0	9.8	10.9	11.8
Private Practice Employed By Other	19.1	21.3	29.9	28.7	30.6
Advanced Education	19.5	16.8	18.3	20.2	20.9
Teaching, Research or Administration	1.1	0.7	1.3	0.9	1.1
Government Service	19.7	15.9	14.5	12.7	13.1
Undecided	na	11.6	8.9	8.3	7.8

attrition (15%), those who do not enter practice (54%) and non-residents who return to their home state (7%), approximately 35-40 new graduates of the UNC program are available to enter practice in North Carolina each year. Additionally, each year approximately 15-20 UNC graduates return to the state from government service and advanced education programs. Therefore the net input to dental practice (including specialties) in North Carolina from all UNC trained individuals may be estimated at 55-60 per annum.

Over the past three years, the state has granted licensure to more out-of-state candidates than the number graduated from UNC during the year. Whether this trend will continue is not clear, but it must be considered in evaluating the contribution of the University to the dental manpower in the state.

Another consideration is the serious underrepresentation of minority (black) dentists in North Carolina. There are 116 minority practitioners in the state. The need is to increase the enrollment of black students (currently 7.9%) in proportion to all other categories. Any change in enrollment patterns should address this critical issue.

Summary And Policy Implications

Dental manpower has become a consuming topic among the profession at large in the recent past.

Because the issue is so complex in its origins, and our capacity to project the future with confidence so limited, the most important matter appears to be determining what is the proper question or questions to be asked.

Many thoughtful practitioners are concerned about the possible consequences of a surplus of dentists. This stems in part from the fact that some communities have all the practitioners that current demand will bear (and more). Yet in these same communities there are other practitioners who maintain there is always room for one more "good" dentist; or others seeking associates to permit expansion of their practice.

Another factor is the widespread national and local attention focused on the first year enrollment in dental schools as the source of all problems related to the busyness of dental practitioners. As with anything else in our society, this may create a disproportionate level of attention on enrollment patterns in our schools. The real danger here is oversimplification of a complex problem, of forgetting that a university based dental school is far more than a D.D.S. program, and failing to take the longer view with respect to future needs for health (dental) manpower.

However, there is sound evidence that the nation in general has moved far toward meeting the health manpower shortages projected in the 1950s and 1960s. So the question in the public interest is—are we in

North Carolina educating too many dentists?

Since the overriding focus of higher education is on the future, a future which easily encompasses the turn of the century and beyond, no one can be precise with any degree of confidence about the number of students who should be enrolled in our schools of dentistry in the short term. It is hoped that the following questions and observations about potential policy conclusions will be helpful:

- Does dental education in North Carolina meet long-term estimates for needed care as well as providing researchers and teachers for the future?
- How accurate are our need and productivity data?
- Will national and state dental groups be successful in increasing the demand for care?
- Is there a long-term busyness problem in dentistry in North Carolina? What is the real effect of the economy on demand for dental care?
- North Carolina educates fewer dentists per capita than any other state in the region except Florida. Should it continue to do so?
- Should North Carolina residents have a right to equivalent access to pursue a dental education compared to residents of surrounding states? Currently UNC provides fewer opportunities than in all but two states in the mid-Atlantic and Southeastern regions (Florida and Mississippi).
- Should the state educate fewer dentists when it now licenses each year as many practitioners from outside North Carolina as are graduated from its School of Dentistry?
- Should the goal over time be to replace current practitioners with North Carolina residents? If so, what policy should be adopted just now to accomplish this goal?

Continued on page 20



Dr. Horton

Dental Manpower And Its Future

Charles W. Horton, DDS*

(Editor's Note: This article is a new introduction to the 1981 Report of the Dental Manpower Concerns Committee of the North Carolina Dental Society. Recommendations from this report are included for your review.)

Serious investigations of dental manpower resources began in the mid 1970s in North Carolina and the rest of the nation. For a time the profession was divided and uncertain about whether the number of young dentists entering the public and private practice sectors of dentistry could be accommodated. The question is no longer in doubt—there are too many dentists and an excess of dental productive capacity. For the rest of this century, the supply of dentists will increase more rapidly than the population at large.

However, two facts continue to be unalterable which relate directly to manpower.

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Dental disease continues to be widespread despite current changes in trends and shifting patterns of disease.

Secondly, the public's need for professional dental care is great and will not appreciably diminish throughout the remainder of the century.

With these factors in mind, certain conclusions may be drawn as to how they will impact the profession. Changes in the profession will occur rapidly and over a prolonged period of time.

Dental manpower will be distributed more equitably between urban and rural areas and accessibility of dental care to all sectors of the populace will most certainly be improved.

Dental education will suffer its greatest retrenchment since the end of World War II. Many schools will cease to exist and most of those remaining will decrease enrollment to varying degrees to cope with decreasing financial support.

Dental school applicants will drop sharply and quite possibly an inadequate pool of highly motivated students with strong academic backgrounds will be the rule. Schools will be forced to recruit actively to obtain the best possible students to fill entering classes. The best students will tend to gravitate to the other learned professions where opportunities are greater and more varied.

Dental students will be called upon to bear a consistently increasing percentage of the cost of their education because of decreasing revenues from public sources. Most students will graduate with heavy indebtedness. Entering private practice without an individual or an institution to help the graduate get off to a running start, will be hazardous. Disillusionment will further erode positive attitudes of prospective students who might choose dentistry as their profession. Rough times for dental education will be

the order of the day.

In an effort to lower the total cost of dental education, schools will probably take a step backwards and return to the six year minimum time requirement instead of the present eight years—result, a less broadly educated dental graduate.

The numbers and types of specialty practices will decrease. Some specialties will cease to exist while others will probably join to become a single specialty, i.e., pedodontia and orthodontia may well become united.

There will be a great deal of experimentation in practice modes and locations, methods of reimbursement, etc.

Dental auxiliaries will push hard for independent practice as increasing numbers find difficulty in obtaining employment with dentists.

Over the next several years dentists income will continue to decline or show only a very moderate growth. Between 1978 and 1981 dentists income declined at an average rate of 5.5%. Any growth of dentists income, if it occurs, will likely be toward the end of the century. In relation to the other learned professions, dentistry will fare less well than other groups such as physicians, attorneys and engineers.

Contrary to the negative feelings dentists now hold concerning prospects for the future of the profession, many positive changes will occur to benefit the public and the practitioner. More efficient and better treatment methods will result. Dentists will continue to maintain a high level of income in relation to the population at large. Dentists as individuals will be forced to become more active in public affairs to build adequate practices. Of necessity, all of us as individuals must become more caring and empathetic with our patients to retain them. Greater prestige for the profession can be the only result.

Our hope for the future is to control and guide the change that is inevitably overtaking us. Many of the recommendations existing in the North Carolina Manpower Report

are still valid and should serve as a beginning to improve our situation in the complex society in which we now live and work.

Recommendation No. 1

The state of North Carolina and the six health service areas (HSAs) should adopt the dental manpower study for analyzing dental manpower requirements and delete the outmoded dentists-to-population ratio. The supply of dental manpower should be balanced with the demand for dental care in order to optimize the services delivered for the lowest unit cost. Dental manpower analysis should include the following: dental manpower supply, need and demand for dental care, productivity, productive capacity of the present system, percent underutilization, population growth, and effects of fluoridation.

Recommendation No. 2

The North Carolina Dental Society should take appropriate action to see that those agencies of the U.S. Department of Health and Human Services responsible for the designation of health manpower shortage areas use this report and its findings as the basis for the designation of critical dental shortage areas for North Carolina.

Recommendation No. 3

Public education should be the #1 priority of the HSAs to promote an awareness of the importance of good dental health. Emphasis on preventive dental care will provide the most benefits for the funds expended and thus reduce more expensive treatment resulting from neglect. Improving the current demand (presently 15-20 percent) for preventive services would increase the need for additional hygienists in private dental offices (thus further increasing productivity) and should have a major impact on periodontal disease.

Recommendation No. 4

HSA goals and objectives should be consistent with the need to increase dental office productivity in order for the cost of dental services to remain below increases in the consumer price index (CPI) in future years as they have in the past.

Recommendation No. 5

The supply of dental manpower in North Carolina is presently adequate and the rate of increase should be reduced in order to avert a decline in productivity and rising costs for dental health care. Capitation grants to dental schools based on increased enrollments should be phased out nationwide since this has been a major cause of the excessive supply of dentists.

Recommendation No. 6

Additional dental assistant programs in community colleges should be developed to help alleviate the maldistribution and shortages of these personnel in non-metropolitan areas.

Recommendation No. 7

The North Carolina Dental Society (in consultation with local dental societies) should take positive steps to identify those areas of the state with inadequate numbers of dental manpower (including dentists, dental hygienists, and dental assistants) and approach responsible public and private groups in these counties with an offer to work collaboratively with them to (A) explore

these dental manpower needs in greater detail, and, if necessary, (B) to assist these areas in the acquisition of dental manpower required to meet these needs.

Recommendation No. 8

In an era of rising inflation, a decline in after-tax discretionary disposable income obviously reduces the demand for dental care. An effort should be made to reduce financial barriers to the receipt of quality dental care services in North Carolina. The North Carolina Dental Society should take the lead in working with private industry and state government to encourage the provision of dental insurance for employees as a necessary addition to their general health care insurance coverage. The North Carolina General Assembly and the Department of Human Resources should be encouraged to continue to analyze and adjust the provisions and priorities of the state's Medicaid program to meet these needs.

Recommendation No. 9

The North Carolina dental profession needs to undertake an aggressive effort to bring the problem of periodontal disease in North Carolina under more effective control. Prevention of the disease should have the highest priority. The major effort should be directed towards a broad public health education program for citizens of the state. Additional efforts could involve revisions in the undergraduate dental and dental hygiene and continuing clinical education programs for practicing dentists and dental hygienists.

Recommendation No. 10

Strict supervision by the dentist for each of his or her patients during oral examinations and periodic prophylaxis procedures performed by the dental hygienist is necessary for the early diagnosis of incipient periodontitis. Further coordination of the proper treatment procedures between dentist and dental hygienist is essential to providing a better prognosis for the patient's disease.

Recommendation No. 11

The North Carolina profession, governmental agencies, and all interested citizen groups should begin an intensive campaign to promote an awareness of the importance of good dental health among all our citizens. Extensive use of the media and the public education system directed toward this problem should be encouraged.

Recommendation No. 12

Recommendations in this report should be adapted and implemented by local health systems agencies.

Recommendation No. 13

The state's six health systems agencies should be assisted with the application of the content and findings of this study.

Recommendation No. 14

The North Carolina Dental Society House of Delegates should adopt the conclusions and recommendations of this study as an official policy of the society.

Citizen's Committee Reports On Dental Manpower

Last year Chancellor Christopher Fordham of the University of North Carolina at Chapel Hill appointed a citizen's committee to examine the issues surrounding dental manpower and dental school admissions. This committee has completed its deliberations and has submitted its findings to the Chancellor. A copy of this report was mailed to every dentist in the state. The Committee has recommended that the University of North Carolina School of Dentistry not consider reducing the class size at this time. This conclusion was based upon their assessment of both the need and demand for dental care in North Carolina in coming years.

The Committee recognized the important distinction between clinically recognized need and effective demand for dental care. Need is determined by a subjective assessment of what constitutes adequate dental care; while demand is more a function of what individuals, governments, and other third parties are willing to expend for dental care. While it is unknown exactly how people express their preferences for dental care, it seems likely that a host of factors including the condition of the economy, tax policies and attitudes toward dental care enter into the final decision to see a dentist.

The reasons for the Committee's conclusions can be summarized as follows:

- The unmet dental health care need in North Carolina;
- The projected growth of the population of the state;
- The need to provide North Carolinians an opportunity for dental education;
- The annual contributions of the School to dental practice in North Carolina.

The Committee's conclusion regarding the size of the dental school's entering class and the corresponding number of professionals trained at North Carolina who enter dental practice each year is drawn from their assessment of the dental manpower needs of the state. However, there are considerations, other than manpower which contribute to the educational policies of the School. One of the reasons why the School enjoys the reputation of excellence in dental education and research is the quality of the applicant pool from which the entering class of future dentists is drawn. While the number and quality of the total applicants remains high; there has been a 44% reduction in the number of in-state applicants over the past five years. The quality of the in-state has not diminished but



the School is concerned about maintaining the level of selectivity which has characterized the student body.

In response to this situation Dean Barker has recently announced a temporary reduction in the size of the entering dental school class effective for the fall semester of 1984. The reduction will be approximately 5%. This change may be a short lived phenomenon or a permanent change; regardless, the future admissions policies of the School will reflect the character of demand for dental education as it expresses itself in applications as well as the dental manpower needs of the state.

Jacob Freedland Honored



The School of Dentistry of the University of North Carolina at Chapel Hill recently celebrated the establishment of its first endowed professorship and held a three-day series of special activities to honor the Charlotte, North Carolina dentist for whom the chair is named.

The Jacob B. Freedland Endowment is the result of a fund-raising campaign in 1978 by the Dental Foundation of North Carolina, Inc. It honors Freedland, a Wilmington, North Carolina native and long-time Charlotte, North Carolina dentist for his pioneering contributions to the specialty of Endodontics and for his interest in people and their health.

Jacob Berke Freedland attended the University of North Carolina at Chapel Hill and received his dental degree from the Emory University School of Dentistry.

Freedland now serves as Clinical Professor in the Department of Endodontics at the University of North Carolina at Chapel Hill School of Dentistry. He also has served as Consultant, Womack Army Hospital, Fort Bragg, North Carolina; Consultant, US Naval Dental School; Consultant, Norfolk Naval Hospital; Visiting Lecturer, US Army Institute of Dental Research, Walter Reed Medical Center; Head of the Endodontics Department, Charlotte Memorial Hospital; and member of the Editorial Board of the *Journal of Oral Surgery, Oral Medicine, and Pathology*.

In introducing Freedland during the celebration, Dean Ben Barker commented, "It is not unusual for a man to be honored by his alma mater when he has lent his time and energy to its service in an untiring and selfless fashion. Nor is it odd for a community to gather to recognize the contributions of a single citizen when the role he has played has been central to the well being of civic life. In a like fashion professional groups convene from time to time to pay homage to the outstanding individuals particularly when the individual has played a key role in the establishment of the profession. The unusual, but happy, circumstances of tonight's occasion is that we honor one man for each of these achievements."

For his untiring devotion to dental advancement, Freedland has received the Thomas P. Hinman Medalion for Meritorious Service in the Field of Dentistry; the Pierre Fauchard Award; the distinguished service award from the School of Dentistry and the Dental Foundation of North Carolina, Inc.; and the Distinguished Service Award from the School of Dentistry and the Dental Foundation of North Carolina, Inc.; and the Distinguished Service Award from the North Carolina Academy of General Dentistry. In 1979 he received the Distinguished Alumnus Award from the University of North Carolina at Chapel Hill during special University Day activities.

The celebration of the professor-

ship included a dinner reception in Freedland's honor, as well as a performance by actor Ed Metzger of Sherman Oaks, California of his one-man play, "Albert Einstein: The Practical Bohemian". The events were attended by over two hundred supporters of the professorship and the Dental Foundation, as well as members of the University Community.



Ed Metzger as "Albert Einstein: The Practical Bohemian"
photo by Maury Faggart



During the Freedland special activities, four colleagues took time out to talk. Left to right, Dr. Ben D. Barker; Dr. Bob Wilkinson; Dr. James A. Harrell, Sr., and Dr. J. B. Freedland

Barker from page 15

- Do the expectations of recent graduates require adaptation to a new set of ground rules for beginning practice? Does a new society and societal structure suggest that we must disenthral ourselves of the recent past?
- Is a reduction in enrollment in the best interest of the dental education program?
- If a budget reduction must be sustained what will be the further impact on the quality of learning opportunities for the practicing and would be profession?
- Because of limitations in the present facility design, the loss of auxiliary personnel and other operating support, the administration and faculty of the school do not oppose a reduction in the predoctoral enrollment, provided the presumed budgetary consequences could be appropriately addressed by the University. It is estimated that a 10% reduction in enrollment would represent a

budgetary reduction of about four hundred thousand dollars over a four-year period. As frequently pointed out, the impact of such a budgetary loss would be more far-reaching than just the D.D.S. program.

- Single strategies have a poor record of success in addressing policy matters of this type and it is likely that such would be the case here.

The need and demand for dental education will wax and wane according to the perception of the profession, the need for dentists, general career interests of young people, the population of college-age students and the general economy. Assuming a rather balanced projection for each of these forces over the next ten-to-fifteen years, it can be concluded with certainty that the School of Dentistry is not capable of increasing its enrollment over the current level without significant increases in resources. Secondly, it is unrealistic that it would be possible to make the case in the public in-

terest for a major reduction in the school's enrollment on the basis of the dental health care needs of the citizens and the career interests of the young people of the state.

A flexible and possibly fluctuating enrollment policy would appear to be the most desirable. First year enrollment might be projected to fluctuate between a variable number of students throughout the next 25 years. Stated another way, the projected enrollment of the school would be a certain number of students per class, with the possibility of a ten percent increase or decrease depending upon analysis and projection for the short-term. Any decrease in the school's enrollment which is accomplished by a direct formula reduction in its budget is not possible without serious impairment in the quality of several sponsored programs. In any case, the school will not enroll individuals who do not meet minimum admission standards.



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Pedodontics Begins New Approach

Continuing Education

The Department of Pedodontics at the University of North Carolina School of Dentistry is beginning a new approach in continuing education. The UNC Pedodontic Continuing Education Club recently was established to renew the spirit and interest of dentists concentrating in the care of children. The first year will be focused on Practice Management and Financial Planning and will include three courses dealing with this theme.

The first course "Financial Planning and Investing for the Pedodontist" was conducted on October 28-29, 1983, by Dr. Jim Jackson, a successful investor, financial advisor, and practicing pedodontist in Charleston, South Carolina. Topics covered included setting personal goals, identifying insurance needs, tax and estate planning, retirement planning, investments and related information.

The next course will be held January 13-14, 1984. The topic will be "Getting and Keeping Dental Patients" and will be conducted by Jay Klomp maker and James F. Littlefield, Professors of Marketing at the University of North Carolina at Chapel Hill. This course will present a meaningful background of information highlighting the following areas: 1) Why, What and Whether to Market, 2) Mergers, Acquisitions and Diversification or How to Expand Your Practice, 3) Promoting Your Practice or Blowing Your Own Horn, 4) Getting Your Patients to Love You So They Keep Coming Back, 5) Leveraging and a Marketing Tool and 6) How Am I Doing and How Can I Do It Better? Each participant will be given a personal copy of the book, *Marketing for the Dental Practice* and other handouts.

The final of these three courses, "Things You Wanted to Know About the Business of Your Practice But Were Afraid to Ask," will be conducted March 16-17, 1984 (1½ days). Mr. Roy Harvel, Vice President of Summit Advisory Corporation, will be the guest speaker. He has twelve years experience in Financial Management and is a member of the International Association of Financial Planners. The course will provide an update on the current laws which affect the dentist in their practice to permit a more intelligent operation of the business side of your practice. It is now appropriate to keep current on the advantages and disadvantages of incorporation in light of changes which take place almost yearly. The bottom line question to evaluate in this course are whether or not you are paying too much income tax. The following areas will be covered: 1) Update of Current Tax Law Changes Affecting You in Your Practice, 2) Running Your Practice as a Business, 3) Should You Be Incorporated in Light of Today's Laws and 4) Are You Paying Too Much Income Tax?

The UNC Pedodontic Continuing Education Club is sponsored by the Department of Pedodontics, but attendance is certainly not limited to practicing Pedodontists. As a special bargain, the Department offers the remaining two courses at significant savings. While the individual cost of each course is \$195.00, the remaining two courses can both be taken for only \$295.00. Arrangements can also be made for doctors from the same office to share in the club individually. To join the club or find out more information about it, please contact the Continuing Dental Education Office at (919) 966-2729 or mail a check to the Office of Continuing Dental Education, 410 Brauer Hall 209H, School of Dentistry, Chapel Hill, NC 27514.

Oral Diagnosis And Disease Mini-Residency

The Department of Oral Diagnosis at the University of North Carolina School of Dentistry is sponsoring a new type of continuing education activity. Rather than the usual one day's worth of lectures, the new program allows dentists to design individually tailored, week-long Continuing Education experiences in oral diagnosis and disease prevention. Geared toward those professionals seeking a more successful practice, the program will offer the opportunity for in-depth educational experiences by allowing the exchange of ideas, the time to explore a broad range of research periodicals and self-study educational modules.

Faculty members of the Department of Oral Diagnosis developed this program for dentists with specialized, in-depth educational needs. Possible programs of study include:

- intensive clinical oral pathology recall case review
- current radiological safeguards, technique, and interpretation
- application of comprehensive disease control measures such as preventive dentistry education and behavior modification, fluorides, nutritional analysis

- and counseling
- information collection, storage and retrieval, charts, forms and computer utilization
- chronic pain management
- appropriate clinical judgement in treating oral medical problems
- comprehensive diagnosis and treatment planning case studies.

This program offers individualized learning experiences developed for the professional according to their needs. Objectives are designed according to the individual, whether it be an in-depth study on a particular topic or a wide ranging update in oral diagnosis and disease prevention. The cost for this experience is negotiable, based on time and the type of experience desired. Most participants stay for a one or two week period for a mutually acceptable time. Inquiries are welcome and should be directed to:

Department of Oral Diagnosis
School of Dentistry 209H
The University of North Carolina
at Chapel Hill
Chapel Hill, N.C. 27514
(919) 966-2746.

(Editor's Note: The following column is a first in a series of articles to be provided by the various departments in the School of Dentistry which are to include the latest research information for your use. The Department of Periodontics is the first of our departments to provide this information.)

Periodontal Research —UPDATE

I. Aukhil, B.D.S., M.S.* and L. H. Hutchens, Jr., D.D.S., M.S.D.* *

Research Update

Periodontal disease remains the single most important cause for tooth loss in adults throughout the world. No other specialty in dentistry has undergone as many recent modifications in its concepts as has periodontics. Until the early 1970's, clinical experience, empirical methods and unchallenged dogmas constituted the basis for periodontal therapy. Magic numbers for pocket depths influenced prognostication of teeth to the extent of condemning them for extraction because they had deep pockets. Research based on scientific methodology has gained momentum in all aspects of periodontics since the early 1970's. Some of the recent research findings have refuted many of the pre-existing dogmas and seriously questioned some old concepts.

The current research can best be presented under the following categories: 1) Etiology and Diagnosis, 2) Initial Hygienic Phase, 3) Definitive Therapy.

1. Etiology and Diagnosis

Periodontal disease is now well recognized as bacterial infection. However, no longer is the microbiological influence considered to be an increase in the numbers of non-specific bacteria, but the recent concept of specificity of bacterial infection in periodontal diseases has implicated several microorganisms in certain clinical entities (van Palenstein Helderman 1981). Examples include *Actinobacillus actinomycetemcomitans* in juvenile periodontitis and *Bacteroides gingivalis* in rapidly advancing adult periodontitis (Slots et al

1982 and Slots 1982). Other studies suggest that the proportions of spirochetes and motile rods in the subgingival plaque of teeth with periodontal disease are directly correlated with the severity of periodontal disease and with treatment (Listgarten and Hellden 1978; Singletary et al 1982). This concept of microbial specificity has been the basis for using appropriate systemic antimicrobial agents in combination with the conventional mechanical debridement in the treatment of periodontal disease. The beneficial effects of supplemental tetracycline therapy in the treatment of juvenile periodontitis (Slots and Rosling 1983) and refractory periodontal disease (Genco 1981) have been indicated. Recently Metronidazole (Flagyl) supplementing conventional therapy has shown significant short-term improvements in clinical parameters (apparently as a result of suppression of anaerobic bacteria) (Loesche et al 1981; Lindhe et al 1983). Among the studies evaluating topical antimicrobial agents, the results were conflicting. Keyes et al (1978) have advocated that salt, sodium bicarbonate, and hydrogen peroxide enhance the microbiological and clinical effects of scaling and root planing. However, Cerra et al (1982) and Wolff et al (1982) found no additional benefits of the "Keyes" approach over conventional oral hygiene and treatment. It must be remembered that the concept of microbial specificity and its recommended mode(s) of treatment rely heavily on microbial profiles of subgingival plaque, meaning that careful microbiologic monitoring is required. It is important to recognize that the proportions of bacteria vary from tooth site to tooth site and deeper pockets need not necessarily contain higher proportions of spirochetes and motile rods (Evian et al 1982). It has also been suggested that the lack of correlation between clinical parameters and bacterial flora may be due to sampling error or the cyclical nature of the disease process (Evian et al 1982).

Microbial profiles of subgingival plaque

seem reasonable but technical problems are inherent. This leaves the clinician with the most important question—what is/are the most reliable clinical parameter(s) to evaluate the severity of periodontal disease and the results of therapy? Although bleeding upon probing, gingival exudate and radiographic evaluation are well-accepted assessments of periodontal disease activity, probing attachment levels and probing pocket depths remain the most frequently used clinical parameters. Our recent understanding of periodontal probing and position of the probe tip in relation to the degree of inflammation (Garnick et al 1980, Magnusson and Listgarten 1980) has made the "periodontal touchstone" seem unreliable. An interesting study by Fowler et al (1982) has shown that clinical measurements of attachment levels are not reliable in determining the actual (histologic) level of attachment since probe tips penetrate an average of 0.45 mm apical to the junctional epithelium in the presence of inflammation and stop 0.73 mm coronal to the junctional epithelium after treatment. It is obvious that the most pressing need in clinical periodontics is for a sensitive means of determining disease activity.

2. Initial Hygienic Phase

Recently, Cercek et al (1983) have shown that significant improvement in probing pocket depths should not be expected following home care procedures alone. Complete plaque control (home care procedures), combined with professional instrumentation (scaling, root planing) has, however, been very effective in arresting further loss of attachment (Tagge et al 1975; Hughes and Caffesse 1978; Badersten et al 1981 and Cercek et al 1983). Maintaining attachment levels seems to be possible regardless of the depth of the initial probing pocket depth. The prolonged effects of such conservative therapy, meaning the time lapse following the start of instrumentation before the full effect of therapy is observed, have been

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shown to be as much as nine months (Garrett 1983; Lindhe et al 1982). This observation suggests that the need for definitive surgical therapy should probably not be made until several months of healing have occurred following the initial non-surgical phase. The method of instrumentation (ultrasonic versus hand instruments) probably has minimal clinical impact since similar clinical results have been observed in several studies (Badersten et al 1981; Torfason et al, 1979).

Recent well-controlled clinical trials have confirmed at least one old concept—the need for regular professional prophylaxis to prevent the progression of periodontal disease. Axelsson and Lindhe (1981), in their six-year longitudinal study, have shown that traditional dental care on a regular basis is not adequate to prevent further progression of periodontal disease. In their study, loss of periodontal attachment and increase in pocket depth were best prevented when professional oral prophylaxis was performed every 2-3 months.

Although the effectiveness of conservative non-surgical therapy has been well demonstrated in terms of short-term clinical improvements, some studies have questioned the adequacy of subgingival plaque and calculus removal by such methods (Waerhaug 1978; Rabbani et al 1981). Rabbani, Ash and Caffesse (1981) have shown that complete removal of subgingival calculus by closed scaling and root planing is difficult in teeth with pockets deeper than 5 mm. Since the chances of failure to remove subgingival deposits by closed procedures are greater in deeper pockets, combining mechanical debridement with a flap procedure to improve accessibility to involved root surfaces seems to be practical.

3. Definitive Therapy

An outstanding challenge to the old dogma of condemning teeth with deep pockets for extraction has come from longitudinal clinical trials evaluating the effectiveness of various forms of periodontal therapy. The classic eight-year study from the University of Michigan has demonstrated that regardless of the therapeutic mode (scaling and root planing,

modified Widman flap and pocket elimination procedures), teeth with advanced periodontal disease can be treated and their attachment levels maintained (Knowles et al 1979). The Michigan study has shown that pocket reduction is not always necessary for maintaining attachment levels. In the Michigan study it was emphasized that the most important requirement for successful maintenance of attachment levels, was professional oral prophylaxis on a regular basis (once every three months). Rosling et al (1976) likewise showed that the results of treatment were dependent more on the control of supra- and sub-gingival plaque than the specific surgical procedure utilized.

In addition to the above clinical trials, retrospective longitudinal clinical observations have also documented substantial benefits in terms of tooth maintenance for patients who have undergone periodontal treatment and periodic maintenance care (Hirschfeld and Wasserman 1978; McFall 1982). Chronic periodontal disease tends to be bilateral and the order of tooth loss can be predicted with the furcated molar teeth being the teeth which are the most frequently lost due to periodontal disease. In the Hirschfeld and McFall studies, the tooth loss was only 7.9% over a treatment period of 19-22 years.

Histological studies evaluating the healing following different forms of currently practiced therapeutic procedures have consistently shown that healing almost always occurs by a long junctional epithelial attachment (Caton and Nyman 1980; Steiner et al 1981). So far, only one study in an animal model has tested the potential of a long junctional epithelium to resist recurrent plaque-induced destruction (Magnusson et al 1983). Although Magnusson et al (1983) suggest that a long junctional epithelium is not inferior to a normal junctional epithelium in terms of its resistance to plaque-induced destruction, much remains to be known about the long junctional epithelium. Indirect evidence, however, suggests that dentitions infected with plaque lose attachment even after surgical therapy (Nyman et al 1977). The search for a predictable therapeutic procedure which would result in a new con-

nective tissue attachment to a previously diseased root surface continues. Among the novel approaches, conditioning the curetted root surfaces by topical application of a saturated solution of citric acid during flap procedures has been shown to result in a new connective tissue attachment (Cole et al 1980; Polson and Proye 1982). Since the underlying healthy periodontal ligament cells have been identified to possess the potential to form new connective tissue attachment, emphasis is also being placed on the kind of cells which populate the curetted root surface during scaling. Using an experimental technique which preferentially allowed the underlying periodontal ligament cells to migrate coronally on the curetted root surface, Nyman et al (1982b) have demonstrated new connective tissue attachment (new cementum with inserting fibers) on a previously diseased human tooth. This and many other studies in progress have invalidated the old concept that "periodontitis affected root surface is a major preventive factor in the formation of new connective tissue attachment." Thus, regeneration of the periodontal tissues lost due to disease at least appears to be a biological possibility at present.

The results of sound scientific investigations and the evaluation of numerous longitudinal clinical studies are indicating that periodontal disease can indeed be successfully treated. Improved methods of diagnosis and new techniques for periodontal regeneration will increase our potential of maintaining more periodontal diseased teeth in the future.

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DF Happenings

In the future the Dental Foundation will use this space to report the events, changes and accomplishments within the Foundation. For the moment, we use part of this space to express our gratitude to the men and women affiliated with the dental profession. Thank you, not only for your time and financial support for the Dental Foundation of North Carolina, but also for maintaining your commitment to the Foundation in a period with an increasing number of appeals from your family, church, school, community, and nation. We feel that only sensitive, responsible people can deal with situations as acute as terrorists' attacks in the Middle East and as chronic as problems of dental disease in North Carolina. Thank you for making the effort.

The Foundation continues to play a major role in resource development for the School of Dentistry and to serve as a catalyst for dental health projects throughout the state. During the next few months the Foundation will establish priorities in these areas for the coming year and reassess its future directions and goals.

The Development Picture

- **ANNUAL GIVING.** Contributions to the Foundation for the year ending June 30, 1983 totalled \$189,652; 11% of these gifts were to unrestricted funds with the other 89% being divided among the various restricted funds. As in recent years, individual donations were fairly evenly split between Alumni and Friends in the following manner:

291 Alumni contributed \$63,449.00
 224 Friends contributed \$60,385.00
 15 Corporate gifts totalled \$65,791.00

- **POLICY CHANGES.** Last December the Board of Directors adopted an investment policy specifying that 75% of the Foundation's assets would be invested. The overall strategy was that the Foundation would function from annual contributions plus allocations of investment income. Due to the change in the investment policy, decline in restricted gifts, and previously budgeted commitments, the Executive Committee will be advising the Directors to consider no new grants for 1983-84.
- **NEW CAMPAIGN.** This fall the Foundation's annual fundraising drive used a new approach—the telephone. Dental students and other University students called between 2200 and 2300 dentists. Completed calls totalled 1,492 and resulted in 490 pledges for \$50,542. Almost half of these pledges were from individuals who had never given to the Foundation.

1982-83 Highlights

- **GRANTS.** During the past year the Directors approved the following grants:
 1. To the School of Dentistry for student research fellowship support, participation in the Medical Educational Development program (student recruitment), faculty development and recruitment, and unrestricted support. Approximately 70% of the unrestricted money was used to purchase a data management system (IBM Computer) for the School's academic and administrative needs. The system allows for a more efficient and integrated management of data and places the school in a leadership position in the use of computers for management.
 2. To distribute the *Natural History of Dental Diseases in North Carolina 1976-1977*. The Executive Committee approved the distribution of this publication to schools of dentistry and public health, health science

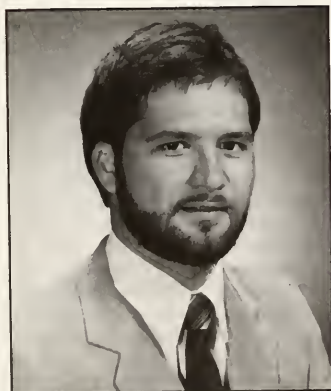
libraries, state dental health programs and stage dental societies. The Foundation has received numerous letters of appreciation from libraries throughout the United States.

3. To the North Carolina Dental Hygienists' Association to assist with organizational efforts for the North Carolina Dental Hygiene Academy.
 4. To the UNC Dental Parents to expedite their project to renovate a lecture hall. (Construction delays and timely contributions by dental parents, obviated the need for this grant).
- The Directors made an irrevocable commitment of the funds in the Freedland endowment fund to the University. The University responded to this resolution by recognizing it as the Jacob B. Freedland Endowment in Endodontics, the first endowed chair for the School of Dentistry and the first chair in endodontics nationally.
 - The UNC Dental Class of 1958 celebrated its 25th anniversary by establishing an endowed fund to reward and recognize faculty efforts in clinical research. Nearly \$20,000 was pledged by class members.
 - The Foundation's corporate office was relocated within the Dental School complex to Suite 410 of Brauer Hall known as the Office of Institutional and Professional Relations (also housing the Continuing Education office and the office of the UNC Dental Alumni Association).
 - The Foundation assisted the School in planning and arranging a celebration of the Jacob B. Freedland Endowment in Endodontics. The events, held on September 21 and 22, involved Dr. Freedland, his family, and contributors to the Chair as well as University officials and students in the School of Dentistry.
 - The most recent members of the Foundation's Patrons, President's and Distinguished Service Clubs were recognized at the Annual Fall Football Day festivities on October 8.

Faculty Updates



Dr. Bentley



Dr. Hairfield

Brauer Hall

Wanda J. Bass (Dental Ecology) has been appointed as Clinical Instructor (part-time), and **Debra A. Timko** (Dental Ecology) as Visiting Research Instructor. Both are assigned to the Office of Dental Hygiene. Bass is a native of Durham and attended NCCU majoring in Biology and completed her education at the UNC-CH School of Dentistry receiving a B.S. degree in Dental Hygiene. In addition to her appointment at the School of Dentistry, Bass practices dental hygiene in Raleigh. Timko, a native of Lorain, Ohio attended the UNC-CH receiving a B.S. degree in dental hygiene. Prior to her appointment at UNC, she has held several hospital appointments working in research areas. Most recently she served as laboratory assistant at the University of North Carolina Dental Research Center where she assisted in experimental procedures which required knowledge of exacting techniques for removing molars from six-day old rats.

Carolyn Bentley (Oral Diagnosis) has been appointed Clinical Instructor. Bentley, a native of London, England, received her Bachelor of Dental Surgery from the University of London, England. She also received a Diploma in Occlusion from the Georgetown University School of Dentistry. Prior to her appointment with the Department of Oral Diagnosis, she was an instructor in the Departments of Anatomy and Occlusion in the Georgetown University of Dentistry.

William M. Hairfield (Dental Ecology) has been appointed Assistant Professor. Hairfield is formerly of Seattle, Washington and received his B.S. in Biology and his D.D.S. from the University of Washington. Currently he is enrolled in the UNC-CH Biomedical Engineering Graduate School. In addition, he received his General Practice Residency Certificate and General Practice Residency Chief Resident/Fellow Certificate from North Carolina Memorial Hospital.

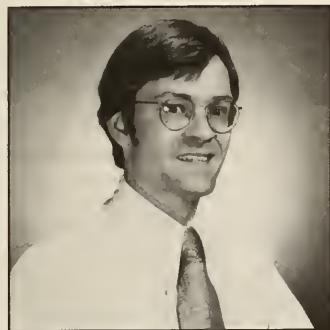
Virginia Anne Hinton (Dental Ecology) has been appointed Clinical Speech Pathologist for the Oral Facial and Communicative Disorders Program. Hinton, formerly of Chattanooga, Tennessee, received her B.S. in Education from the University of Tennessee, Knoxville, and her M.A. from Northwestern University. Before recently joining the UNC-CH School of Dentistry, she worked with the Chattanooga-Hamilton County Speech and Hearing Center in Chattanooga, Tennessee.

Harald O. Heymann (Operative Dentistry) (Class 1978) recently presented programs at several dental meetings including "Cosmetic Dentistry" to the Raleigh-Wake County Dental Society; "Update of Anterior Restorative Materials and Techniques" to continuing education participants at the Walter Reed Army Hospital in Silver Springs, Maryland; and "Resin-Retained Bridges" to the Durham-Orange County Dental Society.

David L. Koth (Fixed Prosthodontics) received fellowship in the American College of Dentists during the Annual Meeting of this group in Anaheim, California.

Robert P. Kusy (Dental Research Center) has recently returned from a thirteen months sabbatical—seven months at the Netherlands Organization for Applied Scientific Research in Delft, Netherlands and six months at the National Bureau of Standards in Washington, DC. While on this sabbatical, Kusy worked on various biomedical and industrial plastics as well as making clinical presentations all over Europe and Annapolis, Maryland.

Stephen R. Matteson (Oral Radiology) was recently appointed to the Editorial Board of the *Journal of the International Association of Dento-Maxillo-Facial Radiology*. Matteson has also been named Chairman of the Panel on the Use of Dental X-rays which is sponsored by the Center for Devices and Radiological



Dr. Nesbit



Is Dr. Sockwell taking some home-grown products on one of his speaking engagements? Wife, Phyllis and Dr. David Brunson give him the eye.

Health in Washington, D.C. and is composed of national authorities on dentistry. The panel will review current research information and publish recommendations on the selection of patients for dental radiographs and the diagnostic effectiveness of specific types of radiographs. A final report is expected in 1985.

Kenneth N. May (Administration) (Class 1973), **Harald Heymann** (Operative Dentistry) (Class 1978), **Ted Roberson** (Operative Dentistry) (Class 1968), and **Dan Shugars** (Administration) recently attended the CODE (Conference of Operative Dentistry Educators) at the University of Louisville.

Charles L. Milone (Dental Ecology) recently spoke at the Second Annual American Conference on Dental Advertising and Public Relations on "Patient Attitudes and Behavior".

Samuel P. Nesbit (Oral Diagnosis) has been appointed Assistant Professor. Formerly of Dexter, Michigan, Nesbit received his B.A. from the College of Wooster in Ohio; his D.D.S. from Case Western Reserve University School of Dentistry, Cleveland, Ohio; and his Master of Science degree in Oral Diagnosis and Radiology from the University of Michigan, Ann Arbor.

Theodore R. Oldenburg (Class 1957) (Pedodontics) recently presented a continuing education course at the University of Iowa entitled "Application of Modern Restorative Techniques in Pedodontics."

R. J. Shankle (Endodontics) was recently appointed as a Consultant for the VA Hospital in Salisbury. He recently lectured to the Blue Ridge Study Club and to the Alabama Fifth District Dental Society.

C. L. Sockwell (Operative Dentistry) recently was a guest at Cape Kennedy for the most recent space shot because not only is he a friend but also the dentist for Dr. Bill Thornton of Faison, N.C. who is an UNC alumnus.

Bill C. Terry (Oral and Maxillofacial Surgery) has recently participated as a representative from the Southeast at a Consensus Conference sponsored by the American Association of Oral and Max-

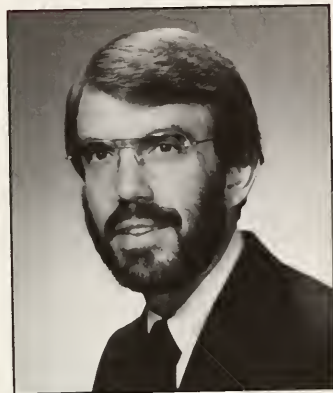
illofacial Surgeons in which criteria were developed for third party carriers concerning the need and acceptable treatment modalities for this type reconstructive surgery.

Joan F. C. Tulloch (Orthodontics) has been appointed Assistant Professor. Tulloch, formerly of Lexington, Kentucky, received her B.D.S. from University College Hospital, University of London, England; her Dip. Ortho. R.C.S. from the Institute of Dental Surgery, London; her F.D.S. and R.C.S. from the Royal College of Surgeons in England. She also attended the Institute of Education, University of London. Her previous academic appointments have included the Institute of Dental Surgery, University of London; Turner Dental School, Manchester University; and most recently, the University of Kentucky College of Dentistry.

Ann Sue von Gonten (Removable Prosthodontics) has been appointed Assistant Professor. Von Gonten is a native of San Angelo, Texas. She received her B.S. from Angelo State University and her D.D.S. from the University of Texas Health Science Center at San Antonio, where she was awarded a certificate in Prosthodontics upon completion of post-graduate work. Her past academic appointments have included teaching assistantships with the University of Texas Health Science Center of San Antonio and an Assistant Professorship with the Ohio State University. She was also with the Community Dental Practice at the Inman Christian Clinic in San Antonio.

**9th ANNUAL
DENTAL PARENTS DAY
FRIDAY, APRIL 6, 1984
UNC SCHOOL OF DENTISTRY
CHAPEL HILL, N.C.**

Vice Chancellor Appointed



Dr. Hershey

New Equipment Installed



Pelton and Crane and Healthco Executives are shown unloading new equipment at the School.

The Board of Trustees of the University of North Carolina at Chapel Hill has named Dr. H. Garland Hershey as Vice Chancellor of Health Affairs. Hershey replaces James R. Turner.

Dr. Hershey is a graduate of the University of Iowa College of Dentistry where he received his D.D.S. degree as well as his M.S. degree in Orthodontics.

He came to Chapel Hill from the University of Iowa in 1971 joining the UNC faculty in the Department of Orthodontics. In 1975 he was appointed Assistant Dean for Academic Affairs and Director for Graduate Education at the UNC School of Dentistry. Hershey was appointed Associate Dean for Academic Affairs in 1980.

Hershey holds membership in many societies including Delta Sigma Delta Dental Fraternity, American Dental Association, Omicron Kappa Upsilon, North Carolina Dental Society, North Carolina Orthodontics Alumni Association, International Association for Dental Research and American Association of Dental Schools.

New clinic equipment greeted many students and patients as they returned to the School of Dentistry clinics this fall. Some of the replaced equipment was almost fifteen years old. Not a lot of years for most dental equipment, but these chairs and units had experienced a new set of future dentists each of the fifteen years. The wear and tear on the units was not unlike that experienced by rental cars after being driven by several drivers.

New chairs and units were installed in Periodontics, Graduate Periodontics, Removable Prosthodontics, Graduate Prosthodontics, and the Dental Auxiliary Utilization Clinics. New units were pur-

chased for the Pedodontics and Graduate Pedodontics Clinics.

Hershey has received numerous honors and awards including listings in *Who's Who in the South and Southwest*, *Who's Who in North America*, *Personalities of the South*, *Who's Who in Health Care* and *Who's Who in America*.

He has held numerous committee appointments and consultant positions on a local, state and national level.

Hershey has written and published journal articles, abstracts, book reviews and self-instructional units. He has made presentations and table clinics on a local, state, national and international level.

On a community level, Hershey has served in various civic areas including as a Boy Scout Master, Chairman of a Boy Scout Troop Committee, President of the Chapel Hill-Carrboro United Fund, and Vice Chairman, Parks and Recreation Commission for the town of Chapel Hill.

Hershey is married to Dr. Barbara Thompson Hershey, a practicing Orthodontist in Chapel Hill and Durham and has four daughters.

chased for the Pedodontics and Graduate Pedodontics Clinics.

The total cost of the units was over \$395,000 with money coming from a special allocation from the University plus student fee revenue set aside for equipment purchase. The equipment was purchased from Pelton and Crane Company of Charlotte and represents their latest technical innovations including solid-state circuitry in the units.

Currently the School is developing plans for purchasing new equipment in the preclinical laboratories and new dental units for the Main Clinic.

Staff Update

Ms. Teresa Minor (Terri) has recently joined the Office of Instructional and Professional Relations staff as coordinator for continuing dental education. A 1982 UNC-CH graduate, Terri assumes the important task of directing the affairs of the Continuing Dental Education Office.

UNC Dental Parents Update

The Executive Committee of the UNC Dental Parents recently met at the School of Dentistry to discuss their new project, the Career Counseling Fund, and Parents Day 1984.

The most recent Parents Project—the Lecture Hall Renovation—has been completed and the new area is being used by students. Lecture Hall B on the third floor of the Old Dental Building has been updated with carpeting, theatre seating, draperies, and improved audiovisual equipment.

Parents Day 1984 is scheduled on Friday,

August 6, 1984 at the School of Dentistry. The day's activities will again include tours of the facilities, programs on post graduate plans and stress, a business meeting and luncheon.

Changes in the Constitution and By-Laws were approved to include representatives from the Dental Hygiene program and Dental Assisting program as members of the Executive Committee of the UNC Dental Parents. These nominations will be made during the Annual Business Meeting on April 6, 1984.

Student News: Gilbert Receives Special Award

Gregg H. Gilbert, son of Mr. and Mrs. M. H. Gilbert of Winston-Salem, North Carolina recently won third place in the American Dental Association Table Clinics Competition for his presentation of "New Evidence for the Pathogenesis of Phenytoin-Induced Gingival Overgrowth".

Gilbert is a third-year dental student at the

UNC School of Dentistry and attended UNC-CH receiving a B.A. degree in Chemistry.

Gilbert's travel was sponsored by the Dentsply International Company. Earlier Gilbert won the Dentsply International Award for this table clinic in local competition at the School of Dentistry.

Alumni Notes

Richard A. Beavers (Class 1979) graduated from the University of Michigan in December 1982 with a M.S. degree in Endodontics and has begun an endodontic practice in Greensboro.

John G. Buchanan (Class 1983) has recently opened a general practice in Lexington.

Ray Chavis (Class 1981) of Laurinburg recently spoke to seventh and eighth grade students at I. E. Johnson Middle School about Indian Heritage. Chavis told the students how important it is for them to

start now making plans for their future education and to set solid goals. He spoke to students about the importance of good study habits, and their willingness to make sacrifices now in order to achieve their goals in the future. Chavis said that only about ten American Indians in the country were practicing dentists. Six of those ten dentists are in North Carolina. He said the state has an Indian population of 65,000, the fifth largest in the nation.



Dr. Ray Chavis, a Laurinburg dentist, was the guest speaker for Indian Heritage Week at I. E. Johnson School. Photo courtesy of Laurinburg Exchange



Dr. Jim Goble is shown here x-raying a patient in the West African nation of Liberia. Goble and his family recently returned from a three-month stay in Liberia where he treated missionaries.

Steve Edgerton (Class 1980) and **David Fisher** (Class 1977) share more than their Wallace dental practice. They share a passion for sailing that only a fellow sailor could understand or appreciate. Fisher and Edgerton sail a Hobie Cat—a catamaran named for its Californian creator Hobert Alter. They are members of Division 9 which includes hundreds of fleets in Virginia, South Carolina, North Carolina, Georgia and parts of Tennessee. Encouraged by their success as a team, the sailing dentists recently entered a third competition in the last official race of the season in Myrtle Beach.

Jeanne Fisher (Class 1983) has recently joined the practice of Dr. Spurgeon Eakes and Dr. **Rex Card** (Class 1980) in Franklinton.

Jim Goble (Class 1980) of Marion, North Carolina recently returned from an eight-week jaunt to Liberia, the West African nation that was founded by former American slaves during the last century. Goble, his wife, Anna, and their son, David traveled to Liberia to offer the dentist's professional assistance to some 900 missionaries. During the three month stay, Goble saw 540 patients during his stay and completed most of the needed treatments on all of them. Expenses of the trip were paid by the Story Memorial Presbyterian Church and friends of Goble from throughout the country. The missionaries treated have no full-time dentists. They rely on volunteers such as Goble. While in Liberia, Goble preached on Monday mornings and spent other mornings beginning his dental work. Each day started at 7:30 a.m.

W. Kelly Harris (Class 1983) has recently opened a family dentistry practice in Asheboro. The office will be open during normal business hours and by appointment Monday and Tuesday nights.

Stephen Hoard (Class 1962) of Tarboro, squeaked out a three-second victory in his sailboat's class in the Dog Days Regatta on the Pamlico River. The races, staged by the Pamlico Sailing Club, were the focus of a weekend of activities along the river in Beaufort County. Also among those taking part were **Bob Taylor** (Class 1963) of

Fayetteville and **Jack Chesson** (Class 1963) of Rocky Mount.

James G. Kessariss (Class 1973) was recently elected Vice-President of the First District Dental Society in North Carolina. Second District Dental Society Officers include UNC alumni **Wallace Butler** (Class 1961), President; **D. Greg Chadwick** (Class 1974), President-Elect; **Steve Yokeley** (Class 1972), 1st Vice-President; **James Eagle** (Class 1966), 2nd Vice-President; **Kenneth R. Phillips** (Class 1964), Secretary-Treasurer; and **George R. Rankin** (Class 1976) Editor. Serving Third District Dental Society are **Morris H. Griffin** (Class 1968), President and **Fred Lopp** (Class 1968), President-Elect. Fourth District Officers include **William C. Windley** (Class 1973), President; **Bettie McKaig** (Class 1978), Vice-President; **Richard Noel** (Class 1969), Secretary-Treasurer; and **H. Zack Smith** (Class 1975), Editor. Serving Fifth District are **Rick Webb** (Class 1973), President; **Charles Biggerstaff** (Class 1974), President-Elect; **Jack Mullen** (Class 1970), Vice-President; **Pinkney B. Young** (Class 1967), Secretary-Treasurer; and **Matthew G. Delbridge** (Class 1960), Editor.

Fred Lopp (Class 1968) was recently installed as President of the Southern Academy of Periodontology at its annual meeting held in Greenlefe, Florida.

Stephen B. Mackler (Class 1969) is proud to announce that **Neil B. Lutins** (Periodontics-1983) has joined him in the practice of periodontics in Greensboro.

Jay McCaslin (Class 1968) was recently elected President-Elect of the Georgia Dental Association.

Roger K. Miller (Class 1983) has now become associated with Dr. **Charles Blair** (Class 1974) in Kings Mountain. Miller has previously won awards for his piano and trumpet playing.

David R. J. Plummer (Class 1980) was recently featured in *The Chronicle* under the weekly column entitled "Someone You Should Meet".

From The President's Desk UNC Dental Alumni Association



Dr. Gorman

Jean Spratt (Class 1977) formerly of Chicago, Illinois has relocated in Durham and serves as county dentist for Durham. Spratt indicates access to the clinic is easy but few utilize county dentists. One reason is that parents do not realize their children may be eligible for treatment. There are some rules limiting use of the clinic. For example, children from a family of four with a net income over \$7,500 are not eligible. Children covered either by Medicaid or private insurance are also ineligible. Spratt, in her spare time, is working on a master's degree in public health from UNC-CH.

Harold Twisdale (Class 1958) and Mark Perlin have recently announced the opening of their Charlotte Plaza Dental Group. Each will maintain a separate practice as well. If the joint practice grows as

expected, associate dentists will be added to the downtown office. They decided to open in the downtown area of Charlotte because of the number of patients located there.

Alan Weinstein (Class 1970) recently addressed the First District Dental Society of the NCDS in Blowing Rock on "Anterior and Posterior Composite Resins". He presented a paper at the ADA Meeting in the Light Concepts Program. Also Weinstein published a paper in the Ohio Dental Journal on "Composite Resins Finishing Systems". He has been invited to give two presentations during the Chicago Midwinter Meeting on "Conservative Alternatives in Esthetic Dentistry".

Donald L. Westbrook (Class 1973) of Smithfield recently ran for election on the Smithfield Town Board of Commissioners.

Dear Alumni and Friends

I am pleased to serve as President of the #1 alumni association on the UNC-CH Campus.

Alumni and friends alike continue to support the School of Dentistry and its many fine programs and activities including those special events scheduled by the Dental Alumni Association. Most recently, the School of Dentistry, the Dental Alumni Association, and the Dental Foundation of North Carolina, Inc. hosted the Sixth Annual Fall Football Day. Nearly 500 alumni and friends returned to Chapel Hill for a morning of continuing education, social hour and luncheon prior to the kickoff of the UNC-Wake Forest Game. As in the past, Matt Wood organized a super reception on the Knudtson Patio. Even the weather and the football team cooperated this year! Many smiling persons were seen wearing the "Drill The Deacons" sunvisors and lapel pins. It was truly a great family activity. We were pleased to see some eighty children in attendance.

Our membership has increased in 1983 due to our continued excellent programs and benefits. This new publication is one example of what can be done with your support and payment of your dues. To date we have 1,030 active dues paying mem-

bers, 68 life members, 82 associate members, 9 honorary members and 101 dues-free members for the current year for a total of 1,290. The Dental Alumni Association needs you to continue your support in 1984! Dues statements will be mailed in the next few days. We hope that you will send your check in promptly. Perhaps you will want to consider a life membership at this time of the year as we approach the calendar year end.

Alumni Day 1984 is scheduled for April 7, 1984 at the School of Dentistry. Ed O'Neil is working toward a new look for the day's activities. Six classes will be celebrating anniversaries ('54, '59, '64, '69, '74, and '79). 1984 will feature the first 30th class reunion. Both 1954 and 1959 have begun working toward a special recognition by their class for the School of Dentistry. I hope you will mark April 7, 1984 on your calendar and join us in Chapel Hill for these special events.

As we begin to look at 1984 and our New Year's resolutions, lets all remember to include the following:

- 1) Payment of 1984 dues for the Dental Alumni Association.
- 2) Make reservations for at least one continuing education course at the School of Dentistry in 1984.

Dental Auxiliary Teacher Education Update

Dental Assisting Update

- 3) Make a year-end contribution to the Dental Foundation of North Carolina, Inc.
- 4) Mark April 7, 1984 on our calendars and attend the 19th Annual Dental Alumni Day activities.

Don't forget if you have questions or comments regarding your Association, you can call me, Mrs. Allen, or our newest contact at the School, Ed O'Neil. If you haven't

Students involved in the internship assignment during the fall semester, 1983 are Lynn Redman (dental assisting program, Technical College of Alamance), Janet Boyd (dental hygiene program, Guilford Technical College) and Vickye Secrist (dental hygiene program, UNC-CH). A record number of twelve students will be completing internships during the spring semester. We are grateful for the excellent cooperation given to us by the dental auxiliary programs throughout the United States for this important component of our curriculum.

During the summer, 1983, D.A.T.E. faculty member, Darlene Sams assumed the position as Associate Director of the undergraduate program. Darlene is responsible for the day-to-day operation of the program and serves as academic advisor to new undergraduate students.

This year there are eleven students enrolled in the Masters program, 21 in the

The Dental Assisting Program welcomed thirty-seven students in the fall semester, 1983. Orientation was conducted by the Director, Mary George, with an emphasis on "professionalism" as the theme for the 1983-1984 academic year. Four graduates from the 1983 class returned and enrolled in the Dental Assisting Specialty Program. The students specializing in the orthodontics section include Michelle Avants, Chandler Leaming, and Joy Smith. Susan Fincannon is enrolled in the periodontics section.

Newly elected class officers include: Matisa Bolen, president; Lori Stephenson, vice-president; Phyllis Blalock, secretary-

had the opportunity to meet Ed, call or drop by our Office located in Suite 410 of Brauer Hall at your earliest convenience. I promise you that you'll be glad you did!

Happy Holidays!

Richard F. Gorman, D.D.S., M.S.
Class of 1966
President

resident Bachelors program and two in the off-campus bachelors program. Of these students, 17 are from North Carolina. Other states represented in the student body include West Virginia, Pennsylvania, New York, New Jersey, Tennessee, Massachusetts, Florida, Vermont, Texas and Hawaii.

Alumni News

During the summer, we welcomed back D.A.T.E. graduates Debbie Arbaugh, Nita Wallace and Elsie Beall for continuing education courses. It is always a pleasure for us when our graduates return. Please be on the lookout for a summer institute on clinical teaching to be offered by the D.A.T.E. faculty probably in June. This week-long institute will be designed for dental assisting and dental hygiene educators who have responsibility in the area of clinical education.

—Mary George

treasurer; and Jane Boles, Spurgeon Society representative.

The Durham-Orange Dental Assisting Association held a welcoming reception for the new students at their meeting in Durham.

Once again, we look forward to the Dental Assisting Alumni Day in April. Be sure to send name and address changes to Pam Klute, coordinator of Dental Assisting Alumni Day, Dental Assisting Program, School of Dentistry, 211H, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27514.

—Pamela Klute

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(800) 362-9584 (TN)
(800) 251-9628 (KY, NC, VA)

Dental Hygiene Update

We welcome two new faculty members this year, Debi Timko and Wanda Bass. They each bring valuable insights to our program.

In case you aren't aware of the Curriculum revision in progress in the Dental School, here is a bit of information. The entire school is in the process of revision to achieve a better educational experience for those who enter our programs. Alumni hold potential for suggesting valuable

changes. We welcome any that you may have.

The faculty wish to thank the Dental Hygiene Alumni Association for the financial support for the OPEN HOUSE. Through your efforts and support our program becomes stronger every year.

—Donna Warren

Name _____

Address _____

____ Enclosed are my 1984 dues \$15.00

____ Enclosed is a contribution to the Alberta Beat Dolan Scholarship

Mail to:

Donna Warren, Sec. Treas.
UNC Dental Hygiene Alumni Association
405 Brauer Hall, Chapel Hill, N.C. 27514

Constituent Activities

ADA Actions Taken At Anaheim Meeting

The following actions were taken by the ADA House of Delegates at the October Meeting, Anaheim, California.

1. Gave the authority to move ahead with institutional advertising by adopting the following resolution:
"Resolved, that the Association implement in 1985 the placement of paid public education television messages proposed in Board Report 6 (Worksheet:312) for a minimum of three years, and let it be further
Resolved, that this program be funded by \$125 per member dues increase, and be it further
Resolved, that the paid public education messages be implemented only after the 1984 House of Delegates votes on effecting the necessary \$125 per member dues increase, and be it further

Resolved, that the Association implement an informational campaign in 1984 to fully inform members of a proposed program of paid public education television messages and the attendant cost and dues increase required, and be it further

Resolved, that the Association implement an informational campaign in 1984 to fully inform members of a proposed program of paid education television messages and the attendant cost and dues increase required, and be it further

Resolved, that closely following the informational campaign, the constituent societies be urged to survey their memberships, using materials supplied by the ADA, as to their willingness to financially support the proposed program. The results of the surveys shall

be reported to the Board of Trustees prior to the 1984 Annual Session."

2. Discontinued the ADA continuing dental education sponsor approval program.
3. Agreed to consider the proposal for a fifth year of dental training without having it specifically mentioned in Resolution 32RC, when that resolution was adopted in the following form: "Resolved, that the American Dental Association, in cooperation with the American Association of Dental Schools, conduct a study of the practice of dentistry, focusing on the competencies which would broaden the practitioners' clinical skills and mix of services, and be it further Resolved, that efforts be made to secure grant support for this project from outside sources, and be it further Resolved, that a progress report be submitted to the 1984 House of Delegates."
4. Reworded Resolution 32RC concerning the scope of undergraduate dental

education programs so that it would read:

"Resolved, that all parties responsible for funding and administration of dental education be urged to evaluate the size and quality of their programs on an on-going and periodic basis, and be it further

"Resolved, that periodic evaluations by the ADA be based on a continued assessment of resources, enrollment levels, manpower projections, disease trends and demand for dental services."

NCAGD

The NCAGD scheduled three fall continuing education programs for 1983.

On October 21 (Morehead City) and October 28 (Asheville), Dr. Michael Williams of Raleigh spoke on "Practice Builders".

On December 9 in Greensboro at the Holiday Inn at the Airport, Dr. Williams will discuss "Team Building in Dentistry/The Fundamentals". Included in this presentation will be how to develop a philosophy of practice, understanding human behavior, understanding human potential, understanding motivation, communication, and how to implement the things you learn from this presentation. This program is designed to interest both the dentist as well as the auxiliary.

For further registration information, contact Dr. Dean Powell, (704) 322-2133 or write NCAGD, PO Box 15396, Durham, North Carolina 27704.

The North Carolina Annual Meeting is scheduled February 24, 25, 26, 1984 at the Sheraton University Center in Durham, North Carolina.

Continuing Dental Education At Chapel Hill—Fall & Winter Calendar

Date Course Title/Lecturers/Tuition/Credit

DECEMBER

Dec. 19 Esthetics Through Bonding; Dr. Irwin Smigel; DDS: \$125.00; 7.8 hours

JANUARY AND FEBRUARY

Jan. 13 Getting and Keeping Dental Patients; Dr. Jay Klompaker, Dr. James Littlefield (Profs. of Marketing); DDS: \$195.00; 7.8 hours

Jan. 20 Removable Partial Dentures—An Overview; Dr. Matt Wood and Faculty, Department of Removable Prosthodontics; DDS: \$110.00, Aux: \$45.00; 7.8 hours

Feb. 3 Periodontics for the Dental Assistant; Dr. Walter McFall, Jr., Dr. Leonard Jewson, Dept. of Periodontics; Aux: \$85; 7.8 hours

Feb. 13-14 Periodontal Surgery for the General Practitioner; Dr. George Greco, Dr. L.H. Hutchens; Dept. of Periodontics; DDS: \$290.00; 15.6 hours

Feb. 17 Overdentures—The State of the Art; Dr. Matt Wood and Faculty, Department of Removable Prosthodontics; DDS: \$110.00, Aux: \$50.00; 7.8 hours

Feb. 24 Treatment Considerations in Endodontic Surgery; Dr. Dennis Torney and Faculty, Dept. of Endodontics; DDS: \$110.00; 7.8 hours

MARCH

March 2-3 A Clinical and Biological Evaluation of Current Orthodontic Therapy; Prof. J. P. Moss, Univ. College Hospital Dental School, London; DDS: \$235.00; 10.8 hours

March 5 Four Handed Dentistry; Dr. Doug Strickland; DDS: \$125.00; 7.8 hours

March 9 Human Relations in the Dental Office; Linda Stewart; Aux: \$35.00; 7.8 hours

March 9-10 Amalgam and Tooth Colored Restorations; Dr. Lee Sockwell and Faculty, Operative Dentistry; DDS: \$200.00, Aux: \$75.00; 15.6 hours

March 16-17 Things You Wanted to Know About the Business of Your Practice But Were Afraid to Ask; Mr. Ray Harvel, Vice Pres., Summit Corporation; DDS: \$195.00; 10.8 hours

March 23 Periodontal Therapy for the Dental Hygienist; Dr. Walter McFall, Jr., Dr. David Simpson; Aux: \$95.00; 7.8 hours

March 23 Methods to Improve Complete Denture Service; Dr. Matt Wood and Faculty, Department of Removable Prosthodontics; DDS: \$110.00, Aux: \$50.00; 7.8 hours

****ALL COURSES ARE CONDUCTED AT THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF DENTISTRY LOCATED IN CHAPEL HILL, NORTH CAROLINA. FOR REGISTRATION FORMS AND INSTRUCTIONS, CONTACT OUR OFFICE AT (919) 966-2729. ALL COURSES PROVIDE AGD CREDIT.**

THE NORTH CAROLINA DENTAL R·E·V·I·E·W

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How To Kill An Association:

- 1) Stay away from meetings.
- 2) If you come, find fault.
- 3) Decline office or appointment to a committee.
- 4) Get sore if you aren't nominated or appointed.
- 5) After you are named, don't attend meetings.
- 6) If you get to one, despite your better judgement, clam up until it's over. Then sound off on how things really should be done.
- 7) Do not work if you can help it.
When the Old Reliables pitch in, accuse them of being a Clique.
- 8) Oppose all banquets, parties and shindigs as being a waste of the members' money and time.
- 9) If everything is strictly business, complain that the meetings are dull and the officers are a bunch of old sticks.